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☐	L35	L34 and immobiliz?	158
☐	L34	L30 and (nucleic)same(fuse?)	270
☐	L33	L30 and (fused)adj(antigen)	0
☐	L32	(antiidiotypic)adj(antibod?)same(fusion)adj(protein)	61
☐	L31	L30 and anti-PE	1
☐	L30	L29 and screening	804
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☐	L26	530/387.2,300,350,536/1.11,23.1,435/7.1,7.92,69.7.ccls.	24650
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☐	L24	(suzuki)adj(masatsugu)	42
☐	L23	(suzuki)adj(masatsuzu)	0
☐	L22	(anti-idioty?)same(prepar?)	0
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☐	L20	(preparing)adj(anti-idioty?)	0
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☐	L17	(method)same(preparing)adj(idiotypic)adj(antibod?)	0
☐	L16	(method)same(producing)adj(idiotypic)adj(antibod?)	0
☐	L15	L14 and anti-idiotypic	171
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☐	L13	L11 and (fusion)adj(protein)same(peptide)	341
☐	L12	L11 and his-Ag	0
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☐	L10	L9 and (antigen)adj(fus?)	0
☐	L9	L8 and screening	86
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☐	L7	L6 and anti-biotin	127
☐	L6	L5 and biotinylated	4806

☐	L5	L4 and produc?	12897
☐	L4	(anti-idiotypic)	13505
☐	L3	(anti-idiotypic)same(universal)adj(tag)	0
	DB=DWPI; PLUR=YES; OP=OR		
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L3 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
2004:1060679 Document No. 142:54768 Interleukin-13 mutein proteins, antibodies, compositions, methods and uses thereof as therapeutics. Heavner, George A.; Li, Li (USA). U.S. Pat. Appl. Publ. US 2004248260 A1 20041209, 36 pp., Cont.-in-part of U.S. Ser. No. 280,645. (English). CODEN: USXXCO. APPLICATION: US 2004-789867 20040227. PRIORITY: US 2001-343717P 20011026; US 2002-280645 20021025.

AB The present invention provides isolated, recombinant, and/or synthetic Mut-IL-13 protein, human, primate, rodent, mammalian, chimeric, humanized, or CDR-grafted, antibodies and Mut-IL-13 **anti-idiotype antibodies** thereto, as well as compns. and nucleic acid mols. that encode at least one Mut-IL-13 protein or antibody. The invention also relates to Mut-IL-13 vectors, host cells, transgenic animals or plants, and methods of **making** and using thereof, including therapeutic compns., methods, and devices.

L3 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
2003:320035 Document No. 138:319701 Anti-idiotypic antibodies for preparation of single chain antibodies (scFv) and proliferation of scFv-expressing T lymphocytes. Cheung, Nai-Kong V.; Guo, Hong-Fen

(Sloan-Kettering Institute for Cancer Research, USA). PCT Int. Appl. WO 2003033670 A2 20030424, 136 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US33331 20021017. PRIORITY: US 2001-330396P 20011017; WO 2001-US32565 20011018; US 2002-97558 20020308.

AB This invention provides a method for identifying cells expressing a target single chain antibody (scFv) directed against a target antigen from a collection of cells that includes cells that do not express the target scFv, comprising the step of combining the collection of cells with an anti-idiotype directed to an antibody specific for the target antigen and detecting interaction, if any, of the anti-idiotype with the cells, wherein the Occurrence of an interaction identifies the cell as one which expresses the target scFv. This invention also provides a method for **making** a single chain antibody (scFv) directed against an antigen, wherein the 15 selection of clones is made based upon interaction of those clones with an appropriate anti-idiotype, and heretofore inaccessible scFv so made. This invention also provides a method for inducing proliferation of scFv-expressing T cells by exposing the T cells to the anti-idiotypic antibodies. Thus, gp58-specific and GD2-specific **anti-idiotype antibodies**, and expanded anti-gp58 and anti-GD2 scFv-expressing T cells were prepared for treating cancers.

L3 ANSWER 3 OF 9 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 1

2003:53821 Document No.: PREV200300053821. Cytotactin derivatives that stimulate attachment and neurite outgrowth, and methods of **making** same. Crossin, Kathryn L. [Inventor, Reprint Author]; Phillips, Greg [Inventor]; Prieto, Anne L. [Inventor]. San Diego, CA, USA. ASSIGNEE: The Scripps Research Institute. Patent Info.: US 6482410 20021119. Official Gazette of the United States Patent and Trademark Office Patents, (Nov 19 2002) Vol. 1264, No. 3. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133 (ISSN print). Language: English.

AB The present invention relates to cytotactin proteins, polypeptides, antibodies (including **anti-idiotype antibodies**), and other cytotacting derivatives useful in the mediation of neuronal attachment and enhancement of the outgrowth of neurites, as well as to methods of using same. Methods of **making** the disclosed proteins, polypeptides, antibodies, derivatives and related compositions, which have a variety of diagnostic and therapeutic applications, are also disclosed.

L3 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

2000:552226 Document No. 134:146018 Immunological evaluation of melanoma patients immunized with an anti-idiotype vaccine mimicking NeuGe-containing gangliosides. Alfonso, Mauro; Hernandez, Ana Maria; Rodriguez, Edmundo; Cordies, Noel; Perez, Rolando; Vazquez, Ana Maria (Center of Molecular Immunology, Havana, Cuba). Biotecnologia Aplicada, 17(2), 118 (English) 2000. CODEN: BTAPEP. ISSN: 0864-4551. Publisher: Elfos Scientiae.

AB Tumor associated gangliosides are very poorly immunogenic carbohydrate self-antigens. One strategy for inducing antibodies against gangliosides involves the use of anti-idiotype monoclonal antibodies (Ab2 MABs) as antigen surrogates, a strategy which exploits the possibility that a ganglioside epitope of carbohydrate nature may be presented by a protein epitope on an antibody mol., **making** it more immunogenic. In fact, Ab2 MAbs that mimic gangliosides highly expressed on tumor cells, such as GM3, GD and GD2, have been obtained. All of them had the property to induce circulating antibodies specific to the corresponding ganglioside

when they were injected into syngeneic or xenogeneic animals. Promising results have been obtained in clin. trials where some of these Ab2 MAbs have been used together with BCG or QS21 adjuvants to treat cancer patients. We have generated and characterized an Ab2 murine MAb to a murine Ab1 MAb named P3, which recognizes specifically N-glycolyl sialic acid on several monosialo- and disialogangliosides. The IgG1 Ab2 MAb obtained was designated as 1E10. Here we describe the immune response induced in the first ten melanoma patients vaccinated with aluminum hydroxide precipitated-1E10 MAb.

L3 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
1996:357143 Document No. 125:26944 Cytotactin derivatives that stimulate attachment and neurite outgrowth, and methods of **making** and using same. Crossin, Kathryn L.; Phillips, Greg; Prieto, Anne L. (Scripps Research Institute, USA). PCT Int. Appl. WO 9608513 A1 19960321, 158 pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1995-US11684 19950914. PRIORITY: US 1994-308359 19940916.
AB The present invention relates to cytotactin proteins, polypeptides, antibodies (including **anti-idiotype antibodies**), and other cytotactin derivs. useful in the mediation of neuronal attachment and enhancement of the outgrowth of neurites, as well as to methods of using same. Methods of **making** the disclosed proteins, polypeptides, antibodies, derivs. and related compns., which have a variety of diagnostic and therapeutic applications, are also disclosed.

L3 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
1995:615382 Document No. 123:7878 Use of anti-idiotypic antibodies to prevent hyperacute rejection of xenografts. Koren, Eugen; Cooper, David K. C. (Oklahoma Medical Research Foundation, USA; Baptist Medical Center of Oklahoma, Inc.). PCT Int. Appl. WO 9510303 A1 19950420, 46 pp. DESIGNATED STATES: W: AU, CA; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US11488 19941012. PRIORITY: US 1993-133934 19931012.
AB Antibodies directed against idiotypes on naturally occurring human anti-animal are disclosed for use in inhibiting xenograft rejection in human patients. An effective quantity of these anti-idiotypic antibodies into the actual or potential xenograft recipient in order to bind to the idiotypes expressed on anti-animal antibodies as well as subpopulations of B lymphocytes, to inhibit hyperacute rejection of transplanted animal tissues or organs by the human patient. Alternatively, anti-idiotypic antibodies are used in the form of immunoaffinity columns to deplete anti-animal antibodies from the recipient's serum. Methods of **making** mouse monoclonal, mouse recombinant, and human recombinant anti-idiotypic antibodies are described. as well as immunoaffinity columns containing immobilized anti-idiotypic antibodies. A method and means for assessing the expected character and severity of a patient's rejection response to transplanted animal tissues is described, as well of identification, isolation and suppression of lymphocytes bearing anti-animal idiotypes. In example, human anti-pig antibody was used for raising monoclonal **anti-idiotype antibodies** in mice. The mouse monoclonal **anti-idiotype antibody** is used for neutralization of hyperacute rejection, and is immobilized for isolation of human anti-pig antibody subsets. Recombinant antibodies against 60 Kd Ro antigen was also produced.

L3 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
1995:1006696 Document No. 124:53735 Method for **making** a monoclonal antibody, monoclonal antibodies to αPDGF receptor and method of in vivo imaging. Larochelle, William J.; Pierce, Jacalyn; Jensen, Roy A.; Aaronson, Stuart A. (United States Dept. of Health and Human Services, USA). U.S. US 5468468 A 19951121, 16 pp. Cont.-in-part of U.S. Ser. No. 915,884. (English). CODEN: USXXAM. APPLICATION: US 1993-81216 19930625. PRIORITY: US 1989-308282 19890209; US 1992-915884 19920720.

AB Potent neutralizing monoclonal antibodies to the human α PDGF receptor (αPDGFR) and fragments thereof are described. These monoclonal antibodies include humanized, chimeric, and **anti-idiotype antibodies.** These monoclonal antibodies specifically bind to an epitope on αPDGFR, inhibits PDGF binding with PDGF, antagonizes PDGF, and does not bind βPDGFR receptor. A hybridoma cell line producing such a monoclonal antibody, methods of in vivo imaging of a pathol. conditions and methods of inhibiting the growth of a neoplasia expressing αPDGFR, which use these monoclonal antibodies are also described. In vitro assays for detecting the presence of αPDGFR and for evaluating the binding affinity of a test compound are also described. Monoclonal antibodies were raised by immunizing Balb/c mice with an interleukin 3-dependent mouse hematopoietic cell transfectant that expresses human αPDGFR at the cell surface.

L3 ANSWER 8 OF 9 MEDLINE on STN DUPLICATE 2

93198891. PubMed ID: 8452154. Monoclonal antibodies in cancer detection and therapy. Goldenberg D M. (Garden State Cancer Center, Center for Molecular Medicine and Immunology, Newark, New Jersey 07103.) The American journal of medicine, (1993 Mar) Vol. 94, No. 3, pp. 297-312. Ref: 185. Journal code: 0267200. ISSN: 0002-9343. Pub. country: United States. Language: English.

AB Anticancer antibodies have had a long history in the management of cancer, with major applications having been shown in the immunohistochemistry and immunoassay of tumor-associated antigen markers. With the advent of hybridoma-derived monoclonal antibodies, attempts to use these more reproducible reagents in vivo for cancer detection and therapy have intensified. Radiolabeled monoclonal antibodies appear to be gaining a role in the management of cancer by means of imaging methods to detect sites of increased radioactivity, and several products have been developed and tested clinically. In the area of radioimmunotherapy, a number of problems still need to be solved, including low tumor uptake of the radioimmunoconjugate, dose-limiting myelotoxicity, and the induction of an immune response to repeated doses of murine (foreign) immunoglobulins. Similar problems exist for toxin and drug immunoconjugates, but these also fail to benefit from the "bystander" effect of the ionizing radiation delivered with radioimmunoconjugates, and plant and bacterial toxin molecules appear to have additional immunogenicity that restricts repeated injections. Despite these limitations, recombinant engineering and other chemical approaches are **making** progress in developing second-generation immunoconjugates that may be more efficacious and less immunogenic as cancer-selective therapeutics. Although nonconjugated, "naked", murine monoclonal antibodies have shown limited success in the therapy of human neoplasms, human and "humanized" forms may be more effective, particularly in lymphatic tumors. Some evidence also suggests that **anti-idiotype antibodies** (antiantibodies) may serve as surrogate antigens in cancer vaccines. Thus, a number of promising immunologic approaches for cancer diagnosis, detection, and therapy have made important progress in recent years.

L3 ANSWER 9 OF 9 MEDLINE on STN DUPLICATE 3

86305826. PubMed ID: 3018080. Tumor-specific idiotype vaccines. I. Generation and characterization of internal image tumor antigen. Raychaudhuri S; Saeki Y; Fuji H; Kohler H. Journal of immunology (Baltimore, Md. : 1950), (1986 Sep 1) Vol. 137, No. 5, pp. 1743-9. Journal code: 2985117R. ISSN: 0022-1767. Pub. country: United States. Language: English.

AB The concept of idiotype vaccines against tumor-associated antigens (TAA) was tested in the DBA/2 L1210 lymphoma subline, L1210/GZL. Monoclonal antibodies against a TAA that cross-reacts with the envelope glycoprotein gp52 of the mammary tumor virus were used to make hybridoma **anti-idiotype antibodies** (Ab2). In this report we describe the characterization of monoclonal anti-idiotypic antibodies against the combining site of 11C1 (Ab1), which recognizes a shared determinant of gp52 of mouse mammary tumor virus (MMTV) and the TAA of

L1210/GZL. Hybridomas expressing the internal image of gp52 were screened by an idiotype inhibition assay. Mice sensitized with radiated L1210/GZL cells produced specific delayed type hypersensitivity (DTH) against the Ab2 hybridoma. Five Ab2 hybridomas were selected and were used to immunize DBA/2 mice. Such immunized animals showed specific DTH reaction against a challenge with the L1210/GZL tumor cells. Similar results were obtained in mice immunized with purified Ab2. Fluorescence-activated cell sorter analysis demonstrated that fluorescence staining of L1210/GZL cells by 11C1 can be completely inhibited with preabsorption on Ab2 hybridoma cells. Mice immunized with 2F10 and 3A4 coupled to keyhole limpet hemocyanin (KLH) contained antibodies binding to MMTV. But only in mice immunized with 2F10-KLH was significant inhibition of L1210/GZL tumor growth observed. Collectively, these results indicate that certain anti-idiotypic antibodies can mimic the MMTV gp52 antigen, as well as the gp52-like epitope expressed on the L1210/GZL tumor cells. These properties of anti-idiotypic antibodies mimicking TAA could be exploited for **making** idiotype vaccines against tumors.

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L4           63 L1 AND FUSION PROTEIN

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L5            3 L4 AND SCREENING

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L6   ANSWER 1 OF 3     MEDLINE on STN
2002640871.    PubMed ID: 12394838.   A rational dosing algorithm for
     basiliximab (Simulect) in pediatric renal transplantation based on
     pharmacokinetic-dynamic evaluations. Kovarik John M; Offner Gisela; Broyer
     Michel; Niaudet Patrick; Loirat Chantal; Mentser Mark; Lemire Jacques;
     Crocker John F; Cochat Pierre; Clark Godfrey; Gerbeau Christophe; Chodoff
     Lawrence; Korn Alexander; Hall Michael. (Novartis Pharmaceuticals, Basel,
     Switzerland. ) Transplantation, (2002 Oct 15) Vol. 74, No. 7, pp. 966-71.
     Journal code: 0132144. ISSN: 0041-1337. Pub. country: United States.
     Language: English.
AB   BACKGROUND: The pharmacokinetics and immunodynamics of basiliximab were
     assessed in 39 pediatric de novo kidney allograft recipients to rationally
     chose a dose regimen for this age group.  METHODS: In study part 1,
     patients were given 12 mg/m(2) of basiliximab by bolus intravenous
     injection before surgery and on day 4.  An interim pharmacokinetic
     evaluation supported a fixed-dose approach for study part 2 in which
     infants and children received two 10-mg doses and adolescents received two
     20-mg doses.  Blood samples were collected over a 12-week period for
     analysis of basiliximab and soluble interleukin-2 receptor concentrations,
     flow cytometry, and screening for anti-
     idiotype antibodies.  RESULTS: Basiliximab clearance in
     infants and children (n=25) was reduced by approximately half compared
     with adults from a previous study and was independent of age (1-11 years),
     weight (9-37 kg), and body surface area (0.44-1.20 m(2) ).  Clearance in
     adolescents (12-16 years, n=14) approached or reached adult values.
     CD25-saturating basiliximab concentrations were maintained for 31+/-12
     days in study part 1 with mg/m(2) dosing and for 36+/-14 days in study
     part 2 based on the fixed-dose regimen ( P=0.31).  A single patient
     experienced a rejection episode during CD25 saturation.  The duration of
     CD25 saturation in patients who experienced a rejection episode after
     desaturation did not differ from those who remained rejection-free for the
     full 6-month period: 34+/-6 days (n=6) vs. 35+/-14 days (n=33 patients);
     P=0.74.  Anti-idiotype antibodies were
     detected in two patients; however, this did not influence the clearance of
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basiliximab or the duration of CD25 saturation. CONCLUSIONS: To achieve similar basiliximab exposure as is efficacious in adults, pediatric patients <35 kg should receive two 10-mg doses and those > or =35 kg should receive two 20-mg doses of basiliximab by intravenous infusion or bolus injection. The first dose is given before surgery and the second on day 4 after transplantation..

L6 ANSWER 2 OF 3 MEDLINE on STN

2002427337. PubMed ID: 12100507. Basiliximab in pediatric liver transplantation: a pharmacokinetic-derived dosing algorithm. Kovarik John M; Gridelli Bruno G; Martin Steven; Rodeck Burkhard; Melter Michael; Dunn Stephen P; Merion Robert M; Tzakis Andreas G; Alonso Estella; Bucuvalas John; Sharp Harvey; Gerbeau Christophe; Chodoff Lawrence; Korn Alexander; Hall Michael. (Novartis Pharmaceuticals, Basel, Switzerland.. john.kovarik@pharma.novartis.com) . Pediatric transplantation, (2002 Jun) Vol. 6, No. 3, pp. 224-30. Journal code: 9802574. ISSN: 1397-3142. Pub. country: Denmark. Language: English.

AB The pharmacokinetics and immunodynamics of basiliximab were assessed in 37 pediatric de novo liver allograft recipients to rationally design a dose regimen for this age-group. In part one of the study, patients were given 12 mg/m2 basiliximab by bolus intravenous injection after organ perfusion and on day 4 after transplant. An interim pharmacokinetic evaluation supported a fixed-dose approach for part two of the study in which infants and children received two 10-mg doses of basiliximab and adolescents received two 20-mg doses. Blood samples were collected over a 12-week period for **screening** for **anti-idiotype antibodies** and analysis of basiliximab and soluble interleukin-2 receptor (IL-2R) concentrations. Basiliximab clearance in infants and children < 9 yr of age (n = 30) was reduced by approximately 50% compared with adults from a previous study and was independent of age to 9 yr, weight to 30 kg, and body surface area to 1.0 m2. Clearance in children and adolescents 9-14 yr of age (n = 7) approached or reached adult values. An average of 15% of the dose was eliminated via drained ascites fluid, and drug clearance via this route averaged 29% of total body clearance. Patients with > 5 L of ascites fluid drainage tended to have lower systemic exposure to basiliximab. CD25-saturating basiliximab concentrations were maintained for 27 +/- 9 days in part one of the study (mg/m2 dosing) with infants exhibiting the lowest durations. CD25 saturation lasted 37 +/- 11 days in part two of the study, based on the fixed-dose regimen (p = 0.004 vs. mg/mg2 dosing), but did not show the age-related bias observed in part one of the study. **Anti-idiotype antibodies** were detected in four patients, but this did not influence the clearance of basiliximab or duration of CD25 saturation. All 40 enrolled patients were included in the intent-to-treat clinical analysis. Episodes of acute rejection occurred in 22 patients (55%) during the first 12 months post-transplant. Three patients experienced loss of their graft as a result of technical complications, and six patients died during the 12-month study. Basiliximab was well tolerated by intravenous bolus injection, with no cytokine-release syndrome or other infusion-related adverse events. Hence, basiliximab was safe and well tolerated in pediatric patients undergoing orthotopic liver transplantation. To achieve similar basiliximab exposure as is efficacious in adults, pediatric patients < 35 kg in weight should receive two 10-mg doses and those > or = 35 kg should receive two 20-mg doses of basiliximab by intravenous infusion or bolus injection. The first dose should be given within 6 h after organ perfusion and the second on day 4 after transplantation. A supplemental dose may be considered for patients with a large volume of drained ascites fluid relative to body size.

L6 ANSWER 3 OF 3 MEDLINE on STN

2000129062. PubMed ID: 10667600. A peptide mimic of E-selectin ligand inhibits sialyl Lewis X-dependent lung colonization of tumor cells. Fukuda M N; Ohyama C; Lowitz K; Matsuo O; Pasqualini R; Ruoslahti E; Fukuda M. (The Burnham Institute, Cancer Research Center, La Jolla, California 92037, USA.. michiko@burnham-inst.org) . Cancer research, (2000 Jan 15)

Vol. 60, No. 2, pp. 450-6. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Selectins bind to carbohydrate ligands in a calcium-dependent manner and play critical roles in host defense and possibly in tumor metastasis. To isolate peptides that mimic E-selectin ligands, we screened a phage peptide library using E-selectin as a target molecule. This attempt unexpectedly failed, probably because the binding affinity of E-selectin to its ligand is low. We then took an approach that is analogous to the isolation of **anti-idiotype antibodies** and were able to isolate peptides that bound to anticarbohydrate antibodies recognizing E-selectin ligands. These peptides, enriched for their binding to anti-Lewis A antibody, were found to bind to E-, P- and L-selectins in a calcium-dependent manner. Phage harboring the identified peptide IELLQAR and synthetic peptides having the same sequence inhibited the binding of sialyl Lewis X or sialyl Lewis A oligosaccharides to E-selectin. The adhesion of HL-60 and B16 melanoma cells expressing sialyl Lewis X to E-selectin was also inhibited by the phage-displaying IELLQAR peptide. Moreover, i.v. injected IELLQAR peptide inhibited the lung colonization of mouse B16 melanoma and human lung tumor cells expressing sialyl Lewis X. These results demonstrate that it is possible to isolate peptides mimicking carbohydrate ligands by **screening** the peptides for binding to anticarbohydrate antibodies and then using them to inhibit carbohydrate-dependent experimental tumor metastasis.

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L7            37 DUP REMOVE L4 (26 DUPLICATES REMOVED)

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L7 ANSWER 1 OF 37 MEDLINE on STN DUPLICATE 1

2007280771. PubMed ID: 17383546. Cytotoxic effects of T cells induced by **fusion protein** 6B11-pulsed dendritic cells on ovarian carcinoma cells. Yang Wenlan; Feng Jie; Chang Xiaohong; Fu Tianyun; Ye Xue; Zhang Hong; Li Xiaoping; Wen Hongwu; Feng Limin; Tong Chunrong; Cui Heng. (Gynecologic Oncology Center, People's Hospital, Peking University, Beijing, 100044, PR China.) Gynecologic oncology, (2007 Apr) Vol. 105, No. 1, pp. 238-43. Journal code: 0365304. ISSN: 0090-8258. Pub. country: United States. Language: English.

AB INTRODUCTION: 6B11 anti-idiotype minibody, a **fusion protein**, has been shown to mimic ovarian carcinoma associated antigen OC166-9. This study was designed to determine whether 6B11 anti-idiotype minibody-pulsed dendritic cells (DCs) can induce cytotoxic T cells against ovarian cancer cells. METHODS: Monocytes were isolated from peripheral blood mononuclear cells collected from patients with epithelial ovarian carcinoma (n=10). The monocytes-derived immature DCs were stimulated by cytokines, and mature DCs were pulsed with 6B11 anti-idiotype-minibody or murine F(ab)'2 fragments. The proliferation of autologous T cells induced by DCs was determined by 3H-thymidine uptake. The cytotoxicity of DC-activated T cells against autologous carcinoma cells was determined by 51Cr-release assay. RESULTS: Purified T cells demonstrated strong proliferation following incubation with 6B11 anti-idiotype minibody-pulsed DCs in 4 of 10 patients. The specific cytotoxicity of purified T cells against autologous carcinoma cells was induced after stimulation with 6B11 anti-idiotype minibody-pulsed DCs in 5 of 10 patients with cytotoxic effects ranging from 25 to 95%. In contrast, isotype murine F(ab)'2 fragments-pulsed DCs did not induce T cell proliferation and cytotoxicity against the targets. Additionally, the cytotoxic effect was partially inhibited by anti-MHC class-I antibody indicating that the cytotoxic effects are antigen-specific. CONCLUSION: 6B11 **anti-idiotype-antibody**-pulsed DCs can induce T cell proliferation and T cell-mediated cytotoxicity against autologous ovarian tumor cells in vitro. The cytotoxic effects of T cells against autologous tumor cells are antigen-specific. These data implicate

the rationale for the use of 6B11 anti-idiotype minibody as immunotherapy against ovarian carcinoma.

L7 ANSWER 2 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
2006:813540 Document No. 145:229339 Murine monoclonal **anti-idiotype antibody** 3H1 for human carcinoembryonic antigen. Chatterjee, Malaya; Kohler, Heinz; Chatterjee, Sunil K.; Foon, Kenneth A. (Board of Trustees of the University of Kentucky, USA). U.S. US 7090842 B1 20060815, 85pp., Cont.-in-part of U.S. Ser. No. 365,484, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1995-579916 19951228. PRIORITY: US 1994-365484 19941228.
AB The authors disclose the generation and characterization of a mouse monoclonal antibody 3H1 that mimics human carcinoembryonic antigen.

L7 ANSWER 3 OF 37 MEDLINE on STN DUPLICATE 2
2006373397. PubMed ID: 16579604. Immunoenzymometric assay for a small molecule,11-deoxycortisol, with attomole-range sensitivity employing an scFv-enzyme **fusion protein** and **anti-idiotype antibodies.** Kobayashi Norihiro; Iwakami Keiichi; Kotoshiba Shuhei; Niwa Toshifumi; Kato Yoshinori; Mano Nariyasu; Goto Junichi. (Kobe Pharmaceutical University, 4-19-1, Motoyama-Kitamachi, Kobe, 658-8558, Japan.) Analytical chemistry, (2006 Apr 1) Vol. 78, No. 7, pp. 2244-53. Journal code: 0370536. ISSN: 0003-2700. Pub. country: United States. Language: English.
AB To overcome the sensitivity limit in immunoassays for small molecules (haptens), we established a noncompetitive immunoenzymometric assay (IEMA) format that can detect attomole-range hapten molecules. We selected 11-deoxycortisol (11-DC; Mr 346.5), a corticosteroid serving a diagnostic index for pituitary-adrenal function, as a model target hapten. A fusion of a single-chain Fv fragment (scFv) specific for 11-DC and alkaline phosphatase (ALP) was generated for use as an enzyme-labeled antibody, instead of the conventional chemically linked enzyme-antibody conjugates. After binding reaction of 11-DC and fixed amounts of the **fusion protein** (scFv-ALP), the unbound **fusion protein** was removed by incubation with a mouse beta-type **anti-idiotype antibody** recognizing the scFv paratope. These complexes were captured by magnetic separation using anti-mouse IgG antibody-coated magnetic beads. Following magnetic sedimentation of the beads, immune complexes of scFv-ALP and 11-DC remained in the supernatant were further purified by capture on microtiter plates with immobilized alpha-type **anti-idiotype antibody.** As measured fluorometrically, ALP activity from bound immune complexes on the plates increased with increasing 11-DC, which is characteristic of a noncompetitive relationship. This IEMA afforded an extremely low detection limit (20 amol/assay), a very wide measurable range, and practical specificity. The plasma 11-DC levels determined for healthy subjects were validated as reliable.

L7 ANSWER 4 OF 37 MEDLINE on STN DUPLICATE 3
2006069759. PubMed ID: 16454995. Humoral immune responses induced by anti-idiotypic antibody **fusion protein** of 6B11scFv/hGM-CSF in BALB/c mice. Chang Xiao-hong; Ye Xue; Cui Heng; Feng Jie; Li Yi; Zhu Hong-lan; Yang Wen-lan; Fu Tian-yun; Cheng Hong-yan; Guo Hui-fang. (Gynecologic Oncology Center, Peking University People's Hospital, Beijing 100044, China.) Chinese medical journal, (2006 Jan 20) Vol. 119, No. 2, pp. 131-9. Journal code: 7513795. ISSN: 0366-6999. Pub. country: China. Language: English.
AB BACKGROUND: We have previously developed and characterized a monoclonal **anti-idiotype antibody**, designated 6B11, which mimics an ovarian carcinoma associated antigen OC166 - 9 and whose corresponding monoclonal antibody is COC166 - 9 (Ab1). In this study, we evaluate the humoral immune responses induced by the **fusion protein** 6B11 single-chain variable fragment (scFv)/human granulocyte macrophage colony-stimulating factor (hGM-CSF) and 6B11scFv in BALB/c mice. METHODS: The **fusion protein**

6B11scFv/hGM-CSF was constructed by fusing a recombinant single-chain variable fragment of 6B11scFv to GM-CSF. BALB/c mice were administrated by 6B11scFv/hGM-CSF and 6B11scFv, respectively. RESULTS: The **fusion protein** 6B11scFv/hGM-CSF retained binding to the anti-mouse F (ab) 2' and was also biologically active as measured by proliferation of human GM-CSF dependent cell TF1 in vitro. After immunization with the 6B11scFv/hGM-CSF and 6B11ScFv, BALB/c mice showed significantly enhanced Ab3 antibody responses to 6B11scFv/hGM-CSF compared with the 6B11scFv alone. The level of Ab3 was the highest after the first week and maintained for five weeks after the last immunization. Another booster was given when the Ab3 titer descended, and it would reach to the high level in a week. CONCLUSION: The **fusion protein** 6B11scFv/hGM-CSF can induce humoral immunity against ovarian carcinoma in vivo. We also provide the theoretical foundation for the application of the **fusion protein** 6B11scFv/hGM-CSF for active immunotherapy of ovarian cancer.

L7 ANSWER 5 OF 37 MEDLINE on STN DUPLICATE 4

2005121987. PubMed ID: 15753392. Monoclonal **anti-idiotype antibody** 6G6.C4 fused to GM-CSF is capable of breaking tolerance to carcinoembryonic antigen (CEA) in CEA-transgenic mice. Schwegler Christian; Dorn-Beineke Alexandra; Nittka Stefanie; Stocking Carol; Neumaier Michael. (Department of Internal Medicine and Clinical Immunology Bad Bramstedt, University of Lubeck, Lubeck, Germany.) Cancer research, (2005 Mar 1) Vol. 65, No. 5, pp. 1925-33. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Internal image anti-idiotypic antibodies are capable of mimicking tumor-associated antigens and thus may serve as surrogate for vaccination strategies in cancer patients. The monoclonal antibody (mAb) 6G6.C4 mimics an epitope specific for the human carcinoembryonic antigen (CEA) and generates a CEA-specific response (Ab3) in various experimental animals. In humans, however, 6G6.C4 only yields a very limited humoral anti-CEA reaction presumably due to tolerance against the CEA autoantigen. In this study, we investigated the CEA-specific Ab3 response in mice transgenic for the human CEA and tested whether the antigen tolerance could be overcome by fusing a recombinant single-chain variable fragment of 6G6.C4 (scFv6G6.C4) to the murine granulocyte macrophage colony-stimulating factor (GM-CSF).Like mAb 6G6.C4, the **fusion protein** (scFv6G6.C4/GM-CSF) retained binding to the CEA-specific idiotype mAb T84.66. Also, scFv6G6.C4/GM-CSF was biologically active as measured by proliferation of the GM-CSF-dependent murine FDC-P1 cells in vitro. After immunization with the scFv6G6.C4/GM-CSF **fusion protein**, CEA-transgenic animals showed significantly enhanced Ab3 antibody responses to scFv6G6.C4 (P=0.005) and to CEA (P=0.012) compared with the scFV6G6.C4 alone. Sera from mice immunized with the **fusion protein** specifically recognized CEA in Western blot analyses with no cross-reaction to CEA-related antigens. Finally, the Ab3 antisera detected single CEA-expressing tumor cells in suspension as shown by flow cytometry. Taken together, these data show in a model antigenically related to the human system that vaccination with scFv6G6.C4/GM-CSF improves vaccination against an endogenous tumor-associated antigen resulting in a highly specific humoral Ab3 response in vivo that is capable of bind single circulating CEA-positive tumor cells.

L7 ANSWER 6 OF 37 MEDLINE on STN

2005474596. PubMed ID: 16143248. A multicenter, prospective, randomized, double-blind trial of basiliximab in heart transplantation. Mehra Mandeep R; Zucker Mark J; Wagoner Lynne; Michler Robert; Boehmer John; Kovarik John; Vasquez Arthur. (Cardiomyopathy and Heart Transplant Center, Ochsner Clinic Foundation, New Orleans, Louisiana, USA.. mmehra@ochsner.org) . The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation, (2005 Sep) Vol. 24, No. 9, pp. 1297-304. Journal code: 9102703. E-ISSN: 1557-3117. Pub.

country: United States. Language: English.

AB BACKGROUND: The role and pharmacokinetics of interleukin-2 (IL-2) monoclonal antibodies (mAbs) in heart transplantation remain unclear. This 1-year double-blind, randomized, placebo-controlled study evaluated safety, tolerability, and pharmacokinetics of the IL-2 mAb basiliximab with cyclosporine, mycophenolate mofetil, and steroids in adult de novo heart transplant recipients. METHODS: Fifty-six patients received either basiliximab (20 mg) or placebo on Days 0 and 4 post-transplantation. Safety assessments included adverse events, serious adverse events, and infections. The time to and severity of biopsy-proven acute rejection (BPAR) were also assessed. RESULTS: Basiliximab was generally well tolerated. There were no significant differences between treatment groups with respect to adverse event profiles, serious adverse events (84.0% vs 61.3%), or infections (84% vs 74.2%). The mean number of days to first BPAR was longer with basiliximab (73.7 +/- 59.68) than placebo (40.6 +/- 53.30) at 6 months, but not statistically significant (trend). The duration that basiliximab concentrations exceeded the CD25 saturation threshold averaged 38 +/- 13 days. Patients with rejection did not clear basiliximab faster or have shorter durations of saturation than rejection-free patients. None of the patients screened had detectable **anti-idiotype antibodies.** CONCLUSIONS: These pilot results describe the pharmacokinetics of basiliximab and show that basiliximab appears to be tolerated with a similar safety profile to placebo in adult de novo heart transplant recipients. Larger scale clinical trials are feasible and warranted.

L7 ANSWER 7 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

2004:182921 Document No. 140:234394 Chimeric antigen comprising a first antigen-binding domain of **anti-idiotype antibody** linked to a second antigen for producing target idiotype antibody. Suzuki, Masatsugu (Peptide Door Co., Ltd., Japan). PCT Int. Appl. WO 2004018521 A1 20040304, 18 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2003-JP10671 20030822. PRIORITY: JP 2002-241695 20020822.

AB It is intended to provide an **anti-idiotype antibody** which can be conveniently and economically constructed compared with the existing type; a method of constructing the **anti-idiotype antibody**; and a method of preparing a target idiotype antibody using the above-described **anti-idiotype antibody.** A substance binding to the antigen-binding site of a first antibody is prepared and this substance is ligated to a second antigen to give a fused antigen. Next, this fused antigen is bonded to a second antibody capable of binding to the second antigen as described above, thereby giving an **anti-idiotype antibody** against the first antibody. In a method of preparing a specific idiotype antibody which comprises inoculating an animal with an **anti-idiotype antibody** to the idiotype antibody and then further inoculating with an antigen of the above idiotype antibody, the **anti-idiotype antibody** as described above is employed. Thus, the target idiotype antibody can be efficiently obtained.

L7 ANSWER 8 OF 37 MEDLINE on STN DUPLICATE 5

2004625245. PubMed ID: 15601552. Induction of T cell responses against autologous ovarian cancer by anti-idiotype minibody-pulsed dendritic cells. Yang Wen-Lan; Cui Heng; Feng Jie; Chang Xiao-Hong; Fu Tian-Yun; Ye Xue; Zhang Hong; Li Xiao-Ping; Wen Hong-Wu; Feng Li-Min; Tong Chun-Rong. (Gynecologic Oncology Center, People's Hospital, Peking University,

Beijing 100044, P.R. China.) Ai zheng = Aizheng = Chinese journal of cancer, (2004 Dec) Vol. 23, No. 12, pp. 1639-45. Journal code: 9424852. ISSN: 1000-467X. Pub. country: China. Language: Chinese.

AB BACKGROUND & OBJECTIVE: Immunotherapy of sensitizing dendritic cells (DCs) with antigen,protein,and frozen cancer cell has been widely used in treating various cancers. The 6B11 **anti-idiotype-antibody**,a **fusion protein** prepared by our research center,can mimic ovarian cancer-associated antigen OC166-9. This study was to induce T cell cytotoxicity against autologous tumor cells of patients with ovarian cancer by 6B11 **anti-idiotype-antibody.** METHODS: Peripheral blood samples were collected from 10 patients with epithelial ovarian cancer,Monocytes were isolated and cultured to obtain DCs. Immature DCs were stimulated with 6B11 **anti-idiotype-antibody** (MINI-DC group); unpulsed DCs (unpulsed-DC group),mouse F(ab) '2 fragments pulsed DCs [F(ab)'2-DC group],and T cells alone (T group) were served as controls. Mature DCs were harvested. (3)H-thymidine ((3)H-TdR) incorporation approach was used to measure effect of DCs on stimulating auto-T cell proliferation. Cytotoxicity of DC-activated T cells against auto-tumor cells was measured with (51)Cr 6-h release test,tumor cell lines,SKOV3,HLE,and K562, were used as controls. RESULTS: In 4 cases,cpm value of (3)H-TdR incorporation,as symbol of auto-T cell proliferation, in MINI-DC group was significantly higher than those in control groups. In 5 cases,specific cytotoxicity effect of T cells on auto-tumor cells was observed in MINI-DC group at effect-target ratio of 20:1,the toxicity effect of T cells in MINI-DC group was 25%-100%,significantly higher than those in F(ab)'2-DC group (18%-40%), unpulsed-DC group (13%-43%),and T group (9%-58%). In 4 cases,the toxicity effect of T cells in MINI-DC group, at effect-target ratio of 20:1,on auto-tumor cells was 25%-100%, higher than those on SKOV3 cells (5%-51%),HLE cells (2%-38%),and K562 cells (2%-25%). Moreover,the toxicity effect of T cells in MINI-DC group on auto-tumor cells can be partially blocked by anti-MHC-I antibody,which indicated that the toxicity was antigen-specific. CONCLUSION: DCs loaded with 6B11 **anti-idiotype antibody** that mimic ovarian cancer antigen can induce antigen specific T cell cytotoxicity against auto-ovarian tumor cells in vitro.

L7 ANSWER 9 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

2003:696448 Document No. 139:208242 Production and uses of the glucagon family member Zsig67. Sheppard, Paul O.; Shoemaker, Kimberly E.; Tackett, Monica L.; Jaspers, Stephen R. (USA). U.S. Pat. Appl. Publ. US 2003166156 A1 20030904, 41 pp., Cont. of U. S. Ser. No. 482,764, abandoned. (English). CODEN: USXXCO. APPLICATION: US 2002-82838 20020221. PRIORITY: US 1999-116416P 19990119; US 2000-482764 20000113.

AB The secretin-glucagon-vasoactive intestinal peptide (VIP) family includes polypeptidic hormones that are crucial regulators of pancreatic, biliary, and gastrointestinal physiol. By virtue of their important biol. functions, these polypeptides have been developed as therapeutics and as diagnostic tools. Zsig67 is a new member of the human secretin-glucagon-VIP family. Nucleic acids for Zsig67 and Zsig67 variants are claimed, as well as **anti-idiotype antibodies** and **fusion proteins** containing Zsig67.

L7 ANSWER 10 OF 37 MEDLINE on STN DUPLICATE 6

2003282770. PubMed ID: 12810653. Interleukin-6 fused to an **anti-idiotype antibody** in a vaccine increases the specific humoral immune response against CA125+ (MUC-16) ovarian cancer. Reinartz Silke; Hombach Andreas; Kohler Siegmund; Schlebusch Harald; Wallwiener Diethelm; Abken Hinrich; Wagner Uwe. (Center of Obstetrics and Gynecology, University of Marburg, 35037 Marburg, Germany.. silke.reinartz@med.uni-marburg.de) . Cancer research, (2003 Jun 15) Vol. 63, No. 12, pp. 3234-40. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Anti-idiotypic (Id) monoclonal antibodies can serve as surrogate for tumor-associated antigens in vaccination strategies. The murine anti-Id

monoclonal antibody ACA125 that mimics the CA125 carbohydrate antigen expressed on ovarian cancer cells induces an anti-anti-Id antibody (Ab3) response that is associated with prolonged survival of ovarian cancer patients. To increase the Ab3 antibody response, we evaluated two strategies in a mouse model: (a) coinjection of human interleukin (IL)-6 together with the **fusion protein** chACA125, which consists of the anti-Id ACA125 single-chain Fv antibody joined to the human IgG1 CH2/CH3 domain; and (b) injection of the **fusion protein** chACA125-IL-6, which consists of the ACA125 single-chain Fv fused to human IL-6 via the IgG1 CH2/CH3 domain. Vaccination of mice with the chACA125-IL-6 **fusion protein** resulted in higher titers of anti-CA125 (Ab3) antibodies compared with application of the chACA125 antibody with or without systemic coadministration of IL-6. Application of the chACA125-IL-6 **fusion protein** did not elicit detectable antihuman IL-6 antibody titers, whereas coinjection of human IL-6 did. Taken together, these data suggest that the chACA125-IL-6 **fusion protein** directly stimulates ACA125-specific B cells via the IL-6 domain, whereas coinjection of IL-6 leads to an overall immune stimulation. Antigen-IL-6 **fusion proteins** will improve vaccination regimens and anticancer immunotherapeutic strategies by increasing the antigen-specific humoral immune response.

L7 ANSWER 11 OF 37 MEDLINE on STN

2003450245. PubMed ID: 14511567. Generation of **anti-idiotype antibodies** for application in clinical immunotherapy laboratory analyses. Liu Zhanqi; Panousis Con; Smyth Fiona E; Murphy Roger; Wirth Veronika; Cartwright Glenn; Johns Terrance G; Scott Andrew M. (Tumor Targeting Laboratory, Ludwig Institute for Cancer Research, Melbourne Tumor Biology Branch, Austin & Repatriation Medical Centre, 145-164 Studley Road, Heidelberg, Victoria 3084, Australia.. zhanqi.liu@ludwig.edu.au) . Hybridoma and hybridomics, (2003 Aug) Vol. 22, No. 4, pp. 219-28. Journal code: 101131136. ISSN: 1536-8599. Pub. country: United States. Language: English.

AB The chimeric monoclonal antibody ch806 specifically targets the tumor-associated mutant epidermal growth factor receptor (de 2-7EGFR or EGFRVIII) and is currently under investigation for its potential use in cancer therapy. The humanised monoclonal antibody hu3S193 specifically targets the Lewis Y epithelial antigen and is currently in Phase I clinical trials in patients with advanced breast, colon, and ovarian carcinomas. To assist the clinical evaluation of ch806 and hu3S193, laboratory assays are required to monitor their serum pharmacokinetics and quantitate any immune responses to the antibodies. Mice immunized with ch806 or hu3S193 were used to generate hybridomas producing antibodies with specific binding to ch806 or hu3S193 and competitive for antigen binding. These **anti-idiotype antibodies** (designated Ludwig Melbourne Hybridomas, LMH) were investigated as reagents suitable for use as positive controls for HAHA or HACA analyses and for measuring hu3S193 or ch806 in human serum. Anti-idiotypes with the ability to concurrently bind two target antibody molecules were identified, which enabled the development of highly reproducible, sensitive, specific ELISA assays for determining serum concentrations of hu3S193 and ch806 with a 3 ng/mL limit of quantitation using LMH-3 and LMH-12, respectively. BIAcore analyses determined high apparent binding affinity for both idiotypes: LMH-3 binding immobilized hu3S193, Ka = 4.76 x 10(8) M(-1); LMH-12 binding immobilised ch806, Ka = 1.74 x 10(9) M(-1). Establishment of HAHA or HACA analysis of sera samples using BIAcore was possible using LMH-3 and LMH-12 as positive controls for quantitation of immune responses to hu3S193 or ch806 in patient sera. These anti-idiotypes could also be used to study the penetrance and binding of ch806 or hu3S193 to tumor cells through immunohistochemical analysis of tumor biopsies. The generation of **anti-idiotype antibodies** capable of concurrently binding a target antibody on each variable domain provides reagents with high sensitivity for the assessment of safety and pharmacokinetic profiles of target antibodies

administered clinically.

L7 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
2002:887113 Document No. 137:380032 Cytotactin derivatives that stimulate attachment and neurite outgrowth, and methods of making same. Crossin, Kathryn L.; Phillips, Greg; Prieto, Anne L. (The Scripps Research Institute, USA). U.S. US 6482410 B1 20021119, 71 pp., Cont.-in-part of U.S. Ser. No. 308,359, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1997-793273 19970522. PRIORITY: US 1994-308359 19940916; WO 1995-US11684 19950914.

AB The present invention relates to cytotactin proteins, polypeptides, antibodies (including **anti-idiotype antibodies**), and other cytotactin derivs. useful in the mediation of neuronal attachment and enhancement of the outgrowth of neurites, as well as to methods of using them. Methods of making the disclosed proteins, polypeptides, antibodies, derivs. and related compns., which have a variety of diagnostic and therapeutic applications, are also disclosed.

L7 ANSWER 13 OF 37 MEDLINE on STN
2002640871. PubMed ID: 12394838. A rational dosing algorithm for basiliximab (Simulect) in pediatric renal transplantation based on pharmacokinetic-dynamic evaluations. Kovarik John M; Offner Gisela; Broyer Michel; Niaudet Patrick; Loirat Chantal; Mentser Mark; Lemire Jacques; Crocker John F; Cochat Pierre; Clark Godfrey; Gerbeau Christophe; Chodoff Lawrence; Korn Alexander; Hall Michael. (Novartis Pharmaceuticals, Basel, Switzerland.) Transplantation, (2002 Oct 15) Vol. 74, No. 7, pp. 966-71. Journal code: 0132144. ISSN: 0041-1337. Pub. country: United States. Language: English.

AB BACKGROUND: The pharmacokinetics and immunodynamics of basiliximab were assessed in 39 pediatric de novo kidney allograft recipients to rationally chose a dose regimen for this age group. METHODS: In study part 1, patients were given 12 mg/m(2) of basiliximab by bolus intravenous injection before surgery and on day 4. An interim pharmacokinetic evaluation supported a fixed-dose approach for study part 2 in which infants and children received two 10-mg doses and adolescents received two 20-mg doses. Blood samples were collected over a 12-week period for analysis of basiliximab and soluble interleukin-2 receptor concentrations, flow cytometry, and screening for **anti-idiotype antibodies.** RESULTS: Basiliximab clearance in infants and children (n=25) was reduced by approximately half compared with adults from a previous study and was independent of age (1-11 years), weight (9-37 kg), and body surface area (0.44-1.20 m(2)). Clearance in adolescents (12-16 years, n=14) approached or reached adult values. CD25-saturating basiliximab concentrations were maintained for 31+/-12 days in study part 1 with mg/m(2) dosing and for 36+/-14 days in study part 2 based on the fixed-dose regimen (P=0.31). A single patient experienced a rejection episode during CD25 saturation. The duration of CD25 saturation in patients who experienced a rejection episode after desaturation did not differ from those who remained rejection-free for the full 6-month period: 34+/-6 days (n=6) vs. 35+/-14 days (n=33 patients); P=0.74. **Anti-idiotype antibodies** were detected in two patients; however, this did not influence the clearance of basiliximab or the duration of CD25 saturation. CONCLUSIONS: To achieve similar basiliximab exposure as is efficacious in adults, pediatric patients <35 kg should receive two 10-mg doses and those > or =35 kg should receive two 20-mg doses of basiliximab by intravenous infusion or bolus injection. The first dose is given before surgery and the second on day 4 after transplantation.

L7 ANSWER 14 OF 37 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN
2002:695094 The Genuine Article (R) Number: 584GW. Single-chain Fv fragments derived from an anti-11-deoxycortisol antibody affinity, specificity, and idiotype analysis. Kobayashi N; Shibahara K; Ikegashira K; Shibusawa K; Goto J (Reprint). Tohoku Univ, Grad Sch Pharmaceut Sci, Aoba Ku, Sendai,

Miyagi 9808578, Japan (Reprint). STEROIDS (JUL 2002) Vol. 67, No. 8, pp. 733-742. ISSN: 0039-128X. Publisher: ELSEVIER SCIENCE INC, 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA. Language: English.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Single-chain Fv fragments (scFvs) against a corticosteroid, I I-deoxycortisol (I I-DC), have been generated as a template antibody fragment from which a comprehensive mutated antibody library containing various anti-steroid antibodies could be constructed. The cDNAs encoding variable heavy (V-H) and light (V-L) domains of a mouse anti-11-DC antibody(CET-M8), were amplified by RT-PCR, combined via a common linker to construct the sequence of 5'-V-H-(Gly(4)Ser)(3)-V-L-3, and cloned into a phagemid vector, pEXmide 5. The phage clones exhibiting binding activity to 11-DC were isolated after single panning against a hapten-immobilizing immunotube. The scFv gene in one of these clones was reamplified to introduce the ochre codons, and then expressed in the bacterial periplasm as the soluble antibody fragment. Two different scFvs (#6 and #12) were cloned, whose binding characteristics were examined by a radioinummoassay using a tritium-labeled 11-DC. Both of them showed high affinity (K-a = 1.3 x 10(10) M-1) and practical specificity (cross-reactivity: cortisol, <0.2%; cortisone, <0.3%) to 11-DC, and furthermore, strong reactivity with an **anti-idiotype antibody** which recognizes the paratope of CET-M8. These results suggest that the present scFvs retain the three-dimensional structure of the paratope of the original monoclonal antibody.

L7 ANSWER 15 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
2003:738386 Document No. 140:233993 Study of anti-idiotype vaccine against ovarian carcinoma. Cui, Heng; Feng, Jie; Qian, Henian (People's Hospital, Peking University, Beijing, 100044, Peop. Rep. China). Beijing Daxue Xuebao, Yixueban, 34(5), 570-573 (Chinese) 2002. CODEN: BDXYAH. ISSN: 1671-167X. Publisher: Beijing Daxue.

AB A review. In the network hypothesis of Jerne, **anti-idiotype antibody** (Ab2β) can mimic the original antigen, and also act as an important immune regulator factor. Ovarian cancer antigen OC166-9 is a tumor-associated antigen expressed on most ovarian epithelial carcinoma. The authors developed a murine monoclonal **anti-idiotype antibody** (6B11), 6B11 single chain Fv (6B11scFv), 6B11scFv/hGM-CSF **fusion protein** (6B11GM). To realize the humanization, and improve the immunogenicity, the authors developed an anti-idiotypic minibody (6B11VLVHhc). The authors also established the human PBL-SCID mouse model to invest the effect of immunotherapy of the antibodies. The above results illustrate a very hopeful use as a vaccine for ovarian carcinoma in the near future.

L7 ANSWER 16 OF 37 MEDLINE on STN
2002427337. PubMed ID: 12100507. Basiliximab in pediatric liver transplantation: a pharmacokinetic-derived dosing algorithm. Kovarik John M; Gridelli Bruno G; Martin Steven; Rodeck Burkhard; Melter Michael; Dunn Stephen P; Merion Robert M; Tzakis Andreas G; Alonso Estella; Bucuvalas John; Sharp Harvey; Gerbeau Christophe; Chodoff Lawrence; Korn Alexander; Hall Michael. (Novartis Pharmaceuticals, Basel, Switzerland.. john.kovarik@pharma.novartis.com) . Pediatric transplantation, (2002 Jun) Vol. 6, No. 3, pp. 224-30. Journal code: 9802574. ISSN: 1397-3142. Pub. country: Denmark. Language: English.

AB The pharmacokinetics and immunodynamics of basiliximab were assessed in 37 pediatric de novo liver allograft recipients to rationally design a dose regimen for this age-group. In part one of the study, patients were given 12 mg/m2 basiliximab by bolus intravenous injection after organ perfusion and on day 4 after transplant. An interim pharmacokinetic evaluation supported a fixed-dose approach for part two of the study in which infants and children received two 10-mg doses of basiliximab and adolescents received two 20-mg doses. Blood samples were collected over a 12-week period for screening for **anti-idiotype antibodies** and analysis of basiliximab and soluble interleukin-2

receptor (IL-2R) concentrations. Basiliximab clearance in infants and children < 9 yr of age (n = 30) was reduced by approximately 50% compared with adults from a previous study and was independent of age to 9 yr, weight to 30 kg, and body surface area to 1.0 m2. Clearance in children and adolescents 9-14 yr of age (n = 7) approached or reached adult values. An average of 15% of the dose was eliminated via drained ascites fluid, and drug clearance via this route averaged 29% of total body clearance. Patients with > 5 L of ascites fluid drainage tended to have lower systemic exposure to basiliximab. CD25-saturating basiliximab concentrations were maintained for 27 +/- 9 days in part one of the study (mg/m2 dosing) with infants exhibiting the lowest durations. CD25 saturation lasted 37 +/- 11 days in part two of the study, based on the fixed-dose regimen (p = 0.004 vs. mg/mg2 dosing), but did not show the age-related bias observed in part one of the study. **Anti-idiotype antibodies** were detected in four patients, but this did not influence the clearance of basiliximab or duration of CD25 saturation. All 40 enrolled patients were included in the intent-to-treat clinical analysis. Episodes of acute rejection occurred in 22 patients (55%) during the first 12 months post-transplant. Three patients experienced loss of their graft as a result of technical complications, and six patients died during the 12-month study. Basiliximab was well tolerated by intravenous bolus injection, with no cytokine-release syndrome or other infusion-related adverse events. Hence, basiliximab was safe and well tolerated in pediatric patients undergoing orthotopic liver transplantation. To achieve similar basiliximab exposure as is efficacious in adults, pediatric patients < 35 kg in weight should receive two 10-mg doses and those > or = 35 kg should receive two 20-mg doses of basiliximab by intravenous infusion or bolus injection. The first dose should be given within 6 h after organ perfusion and the second on day 4 after transplantation. A supplemental dose may be considered for patients with a large volume of drained ascites fluid relative to body size.

L7 ANSWER 17 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
2001:397052 Document No. 134:362291 Cloning of cDNA sequences encoding human serpin Zserp11. Holloway, James L. (Zymogenetics, Inc., USA). PCT Int. Appl. WO 2001038534 A2 20010531, 84 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US32100 20001120. PRIORITY: US 1999-450244 19991129.

AB Members of the serine protease family play a role in carefully controlled processes, such as blood coagulation, fibrinolysis, complement activation, fertilization, and hormone production The enzymic activity of the serine proteases is regulated in part by serpins, serine protease inhibitors. Serpin dysfunction is associated with various disorders, including emphysema, blood clotting disorders, cirrhosis, Alzheimer disease, and Parkinson disease. The present invention provides a novel serpin, designated "Zserp11". The present invention also provides Zserp11 variant polypeptides and Zserp11 **fusion proteins**, as well as nucleic acid mols. encoding such polypeptides and proteins, and methods for using these nucleic acid mols. and amino acid sequences.

L7 ANSWER 18 OF 37 MEDLINE on STN DUPLICATE 7
2001426499. PubMed ID: 11475128. Strategies targeting tumor necrosis factor in Crohn's disease. Sandborn W J. (Inflammatory Bowel Disease Clinic, Division of Gastroenterology and Hepatology, Mayo Clinic and Mayo Foundation, Rochester, Minnesota, USA.) Acta gastro-enterologica Belgica, (2001 Apr-Jun) Vol. 64, No. 2, pp. 170-2. Ref: 20. Journal code: 0414075. ISSN: 0001-5644. Pub. country: Belgium. Language: English.

AB Tumor necrosis factor plays an important role in mediating the

inflammation of Crohn's disease. Strategies aimed at reducing tumor necrosis factor in patients with Crohn's disease include the mouse/human chimeric monoclonal antibody infliximab, the humanized monoclonal antibody CDP571, the human recombinant tumor necrosis factor receptor **fusion protein** etanercept, and the small molecule thalidomide. Infliximab is effective for treating active Crohn's disease, maintaining remission, and closing fistulas. Side effects occurring in patients treated with infliximab include human anti-chimeric antibodies, infusion reactions, formation of autoantibodies, and rarely drug induced lupus. CDP571 is effective for treating active Crohn's disease, steroid sparing, and possibly for closing fistulas and maintaining remission. Side effects occurring in patients treated with CDP571 include **anti-idiotype antibodies**, infusion reactions, and formation of autoantibodies. Pilot studies have suggested that etanercept and thalidomide may also be beneficial. Anti-tumor necrosis factor therapies are effective for the treatment for Crohn's disease.

L7 ANSWER 19 OF 37 MEDLINE on STN

2001247404. PubMed ID: 11264639. Differential influence of azathioprine and mycophenolate mofetil on the disposition of basiliximab in renal transplant patients. Kovarik J M; Pescovitz M D; Sollinger H W; Kaplan B; Legendre C; Salmela K; Book B K; Gerbeau C; Girault D; Somberg K. (Novartis Pharmaceuticals, Basel, Switzerland. (Simulect Phase IV Sudy group). john.kovarik@pharma.novartis.com) . Clinical transplantation, (2001 Apr) Vol. 15, No. 2, pp. 123-30. Journal code: 8710240. ISSN: 0902-0063. Pub. country: Denmark. Language: English.

AB Pharmacokinetic sampling was performed in two multicenter trials in which basiliximab (anti-CD25 monoclonal antibody) was administered with triple immunosuppression consisting of cyclosporine microemulsion, corticosteroids, and either azathioprine or mycophenolate mofetil. Blood samples were collected over 12 wk post-transplant from 31 azathioprine-treated and 66 mycophenolate mofetil-treated patients. Empirical Bayes estimates of each patient's basiliximab disposition parameters were derived and the duration of CD25 saturation was estimated as the time over which serum concentrations exceeded 0.2 microg/mL as confirmed by flow cytometry measurements. Basiliximab clearance was 29+/-14 mL/h when coadministered with azathioprine and 18+/-8 mL/h with mycophenolate mofetil. Both were significantly lower compared with a clearance of 37+/-15 mL/h from a previous study of basiliximab with dual therapy ($p<0.001$). As a consequence of the lower clearance of basiliximab, the durations of CD25 saturation were prolonged in the presence of azathioprine (50+/-20 d; range, 13--84) and mycophenolate mofetil (59+/-17 d; range, 28--94) compared with dual therapy (36+/-14 d; range, 12--91). A total of 27 acute rejection episodes occurred during the first 6 months in the two studies. Durations of CD25 saturation were not different in these patients compared with those who remained rejection-free in each study. A single patient among 57 who were screened developed **anti-idiotype antibodies** to basiliximab. The average duration of CD25 saturation was prolonged by 39 and 64% in the presence of azathioprine and mycophenolate mofetil, respectively. This graded effect was also observed for basiliximab clearance and may be due in part to a differentially reduced humoral response to basiliximab. Nonetheless, the range of CD25 saturation durations and basiliximab clearances did not extend outside the range when basiliximab was used with dual therapy in the absence of these agents. Hence, no dosing adjustment is deemed necessary when basiliximab is used in triple immunosuppressive therapy including either azathioprine or mycophenolate mofetil.

L7 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

2000:233843 Document No. 132:275141 Apoptosis-inducing method using Fas antigen and **anti-idiotype antibody** for cancer therapy. Hagiwara, Hideaki; Aotsuka, Yasuyuki; Miyanohara, Junichi (Japan). Jpn. Kokai Tokkyo Koho JP 2000102389 A 20000411, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-291441 19980929.

AB Disclosed is a method of inducing apoptosis in, e.g., cancer cells, by expression of a chimeric gene for Fas antigen and the variable region of an **anti-idiotype antibody** in the cancer cells followed by the treatment with idiotype antibody. Plasmid pcDNA3.1/apoptobody3s.c. expressing apoptobody3s.c., a **fusion protein** comprised of (1) human Fas antigen fragment containing the transmembrane domain and a functional domain and (2) the variable regions of idio-3 L chain and idio-3 H chain, was prepared and used for the transfection of HeLa cells. Treatment of the transformed HeLa cells with CLN-IgG induced apoptosis. The method can be used for inducing apoptosis in cancer cells for therapy.

L7 ANSWER 21 OF 37 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

2000:810677 The Genuine Article (R) Number: 368FN. A transgenic mouse model for tumour immunotherapy: induction of an anti-idiotype response to human MUC1. Wilkinson R W (Reprint); Ross E L; Lee-MacAry A E; Laylor R; Burchell J; Taylor-Papadimitriou J; Snary D. St Bartholomews Hosp, Imperial Canc Res Technol, Appl Dev Lab, London EC1A 7BE, England (Reprint); Guys Hosp, Imperial Canc Res Fund, Breast Canc Biol Grp, London SE1 9RT, England. BRITISH JOURNAL OF CANCER (NOV 2000) Vol. 83, No. 9, pp. 1202-1208. ISSN: 0007-0920. Publisher: CHURCHILL LIVINGSTONE, JOURNAL PRODUCTION DEPT, ROBERT STEVENSON HOUSE, 1-3 BAXTERS PLACE, LEITH WALK, EDINBURGH EH1 3AF, MIDLOTHIAN, SCOTLAND. Language: English.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB MUC1 is a membrane bound, polymorphic epithelial mucin expressed at the luminal surface of glandular epithelium. It is highly expressed in an underglycosylated form on carcinomas and metastatic lesions and is, therefore, a potential target for immunotherapy of cancer. The monoclonal antibody HMFG1 binds the linear core protein sequence, PDTR, contained within the immunodominant domain of the tandem repeat of MUC1. The efficacy of murine and humanized HMFG1 (Ab1) used as an anti-idiotypic vaccine was examined in mice transgenic for human MUC1 (MUC1.Tg) challenged with murine epithelial tumour cells transfected with human MUC1. Humoral idiotypic cascade through Ab2 and Ab3 antibodies was observed in MUC1.Tg mice following multiple antibody inoculations in the presence of adjuvant, Impaired tumour growth at day 35 and highest Ab3 levels were found in mice that had received mHMFG1 with RAS adjuvant, However, comparison of Ab3 levels in individual mice with tumour size in all treatment groups did not show a correlation between smaller tumours and increased levels of **anti-idiotype antibody** . This suggests that the anti-tumour effects of anti-idiotype vaccination are not solely related to the induction of idiotypic antibody cascades and probably involve other mechanisms. (C) 2000 Cancer Research Campaign.

L7 ANSWER 22 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

2001:47386 Document No.: PREV200100047386. A natural killer cell-dependent antitumor response induced by an anti-idiotype-interleukin 2 **fusion protein.** Wu, P. Y. [Reprint author]; Liu, S. J. [Reprint author]; Lee, C. N. [Reprint author]; Tao, Mi-Hua [Reprint author]. Institute of Biomedical Sciences, Academia Sinica, Taipei, 115, Taiwan. FASEB Journal, (April 20, 2000) Vol. 14, No. 6, pp. A1000. print. Meeting Info.: Joint Annual Meeting of the American Association of Immunologists and the Clinical Immunology Society. Seattle, Washington, USA. May 12-16, 2000.
CODEN: FAJOEC. ISSN: 0892-6638. Language: English.

L7 ANSWER 23 OF 37 MEDLINE on STN

2000129062. PubMed ID: 10667600. A peptide mimic of E-selectin ligand inhibits sialyl Lewis X-dependent lung colonization of tumor cells. Fukuda M N; Ohyama C; Lowitz K; Matsuo O; Pasqualini R; Ruoslahti E; Fukuda M. (The Burnham Institute, Cancer Research Center, La Jolla, California 92037, USA.. michiko@burnham-inst.org) . Cancer research, (2000 Jan 15) Vol. 60, No. 2, pp. 450-6. Journal code: 2984705R. ISSN: 0008-5472. Pub.

country: United States. Language: English.

AB Selectins bind to carbohydrate ligands in a calcium-dependent manner and play critical roles in host defense and possibly in tumor metastasis. To isolate peptides that mimic E-selectin ligands, we screened a phage peptide library using E-selectin as a target molecule. This attempt unexpectedly failed, probably because the binding affinity of E-selectin to its ligand is low. We then took an approach that is analogous to the isolation of **anti-idiotype antibodies** and were able to isolate peptides that bound to anticarbohydrate antibodies recognizing E-selectin ligands. These peptides, enriched for their binding to anti-Lewis A antibody, were found to bind to E-, P- and L-selectins in a calcium-dependent manner. Phage harboring the identified peptide IELLQAR and synthetic peptides having the same sequence inhibited the binding of sialyl Lewis X or sialyl Lewis A oligosaccharides to E-selectin. The adhesion of HL-60 and B16 melanoma cells expressing sialyl Lewis X to E-selectin was also inhibited by the phage-displaying IELLQAR peptide. Moreover, i.v. injected IELLQAR peptide inhibited the lung colonization of mouse B16 melanoma and human lung tumor cells expressing sialyl Lewis X. These results demonstrate that it is possible to isolate peptides mimicking carbohydrate ligands by screening the peptides for binding to anticarbohydrate antibodies and then using them to inhibit carbohydrate-dependent experimental tumor metastasis.

L7 ANSWER 24 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

1999:216944 Document No. 130:236462 Method of affinity crosslinking biologically active, immunogenic peptides to antibodies. Kohler, Heinz (USA). PCT Int. Appl. WO 9914244 A1 19990325, 33 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US19710 19980918. PRIORITY: US 1997-59515 19970919.

AB A method of affinity crosslinking a peptide to an antibody by photo-chemical activating an azido compound in a peptide comprising said azido compound; adding an antibody to the photochem. activated peptide; and allowing the photochem. activated peptide and the antibody to react. The azido compound has an affinity for a hydrophobic structure in the variable domain of the antibody which binds to nucleotides or nucleosides, binding the peptide into a native binding pocket of the Ig (Ig) structure of an antibody. The site of crosslinking is located away from the antigen binding site in the Fv domain avoiding the compromise of antigen recognition. A composition of a peptide cross-linked to an antibody is also disclosed. Thus, anti-idiotype vaccines were prepared by crosslinking 3H1, an **anti-idiotype antibody** that mimics carcinoembryonic antigen, or 38C13, an **anti-idiotype antibody** of B lymphoma, with a C3d peptide (i.e. KNRWEDPGKQLYNVEA) to enhance antigen presentation.

L7 ANSWER 25 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN

1999:705041 Document No. 131:335809 Anti-idiotypic antibody mimicking ganglioside GD2. Chatterjee, Malaya; Foon, Kenneth A.; Chatterjee, Sunil K. (The Board of Trustees of the University of Kentucky, USA). U.S. US 5977316 A 19991102, 74 pp., Cont.-in-part of U.S. 5,612,030. (English). CODEN: USXXAM. APPLICATION: US 1996-591196 19960116. PRIORITY: US 1995-372676 19950117.

AB The authors disclose an **anti-idiotype antibody** (1A7) produced by immunizing with an antibody specific for ganglioside GD2. The 1A7 antibody induces an immune response against GD2, which comprises a combination of anti-GD2 antibody and GD2-specific T cells. The invention further provides methods for treating a disease associated with altered GD2-specific expression, particularly melanoma, neuroblastoma, glioma, soft tissue sarcoma, and small cell carcinoma.

L7 ANSWER 26 OF 37 MEDLINE on STN DUPLICATE 8

1999306687. PubMed ID: 10380019. Construction and characterization of a chimeric **fusion protein** consisting of an **anti -idiotype antibody** mimicking a breast cancer-associated antigen and the cytokine GM-CSF. Tripathi P K; Qin H; Bhattacharya-Chatterjee M; Ceriani R L; Foon K A; Chatterjee S K. (Department of Internal Medicine, and The Lucille Parker Markey Cancer Center, University of Kentucky Medical Center, Lexington 40536, USA.) Hybridoma, (1999 Apr) Vol. 18, No. 2, pp. 193-202. Journal code: 8202424. ISSN: 0272-457X. Pub. country: United States. Language: English.

AB **Anti-idiotype antibody**, 11D10 mimics biologically and antigenically a distinct and specific epitope of the high molecular weight human milk fat globule (HMFG), a cancer-associated antigen present in over 90% of breast tumor samples. To augment the immunogenicity of 11D10 without the aid of a carrier protein or adjuvant, we made a chimeric 11D10-GM-CSF **fusion protein** for use as a vaccine. An expression plasmid for 11D10 was made by ligation of the DNA sequences of the 11D10 light-chain variable region upstream of the human kappa constant region. The heavy-chain plasmid carrying GM-CSF was made by ligation of the heavy-chain variable region sequences upstream of the human gamma1 constant region CH1 fused to the DNA fragment encoding the mature GM-CSF peptide 3' to the CH3 exon. NS1 plasmacytoma cells were transfected with the light and heavy-chain vectors by electroporation. **Fusion protein** secreted in the culture medium was purified and was characterized by gel electrophoresis as well as by determination of the biological activity of the fused GM-CSF. In nonreducing SDS-polyacrylamide gels, a single band approximately 200 Kd reacted with anti-human kappa, anti-human lambda1 and anti-GM-CSF antibodies. In reducing polyacrylamide gels, a approximately 74 kd protein reacted with anti-human lambda1 and anti-GM-CSF antibodies. The **fusion protein** induced proliferation of GM-CSF dependent NFS-60 cells. These results suggest that the protein is a chimeric **anti-idiotype antibody** consisting of 11D10 variable domains, human kappa and lambda1 constant domains and that the GM-CSF moiety fused to the constant region lambda1 is biologically active.

L7 ANSWER 27 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

1998:453019 Document No.: PREV199800453019. Treatment of B-cell lymphoma with chimeric IgG and single-chain Fv antibody-interleukin-2 **fusion proteins.** Liu, Shih-Jen; Sher, Yuh-Pyng; Ting, Chou-Chik; Liao, Kuang-Wen; Yu, Cheng-Ping; Tao, Mi-Hua [Reprint author]. Inst. Biomed. Sciences, Academia Sinica, Taipei 11529, Taiwan. Blood, (Sept. 15, 1998) Vol. 92, No. 6, pp. 2103-2112. print.
CODEN: BLOOAW. ISSN: 0006-4971. Language: English.

AB Anti-idiotype (Id) antibodies (Abs) have been shown to be effective in treatment of B-cell lymphoma in animal models and in clinical trials. The combination of interleukin-2 (IL-2) can augment the therapeutic effect of anti-id Absolute To further improve the power of the combined therapy, a monoclonal anti-Id Ab, S5A8, specifically recognizing a murine B-cell lymphoma 38C13, was genetically modified to contain the IL-2 domain and thus use the unique targeting ability of Abs to direct IL-2 to the tumor site. Two forms of the anti-Id-IL-2 **fusion proteins** were constructed: one configuration consisting of mouse-human chimeric IgG (chS5A8-IL-2) and the other containing only the variable light (VL) and variable heavy (VH) Ab domains covalently connected by a peptide linker (scFvS5A8-IL-2). Both forms of the anti-Id-IL-2 **fusion proteins** retained IL-2 biological activities and were equivalent in potentiating tumor cell lysis in vitro. In contrast, the antigen-binding ability of scFvS5A84L-2 was 30- to 40-fold lower than that of the bivalent chS5A8-IL-2. Pharmacokinetic analysis showed that scFvS5A8-IL-2 was eliminated about 20 times faster than chS5A8-IL-2. Finally, it was shown that chS5A8-IL-2 was very proficient in inhibiting 38C13 tumor growth in vivo, more effectively than a combined therapy with

anti-id Abs and IL-2, whereas scFvS5A8IL-2 did not show any therapeutic effect. These results demonstrate that the anti-Id-IL-2 **fusion protein** represents a potent reagent for treatment for B-cell lymphoma and that the intact IgG **fusion protein** is far more effective than its single-chain counterpart.

L7 ANSWER 28 OF 37 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

1998:364506 The Genuine Article (R) Number: ZL948. Enhanced molecular mimicry of CEA using photoaffinity crosslinked C3d peptide. Lou D Y; Kohler H (Reprint). Immpheron Inc, Lexington, KY 40509 USA (Reprint); Univ Kentucky, Dept Microbiol & Immunol, Lexington, KY 40536 USA. NATURE BIOTECHNOLOGY (MAY 1998) Vol. 16, No. 5, pp. 458-462. ISSN: 1087-0156. Publisher: NATURE AMERICA INC, 345 PARK AVE SOUTH, NEW YORK, NY 10010-1707 USA. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Antigen mimicry of using anti-idiotypic antibodies for use as cancer vaccines has been disappointing due to the weak immunogenicity of immunoglobulin variable domains. To enhance the immunogenicity of an anti-idiotype vaccine we incorporated a molecular adjuvant peptide into the antibody. The peptide is derived from the C3d region known to bind CR2 receptors on B-cells. A photoreactive peptide is synthesized that affinity-labels a single site in the antibody variable domain. The molecular adjuvant peptide is crosslinked to the anti-idiotype mimetic by chemical means without modifying other sites on the antibody. The C3d-conjugated **anti-idiotype antibody** induces a strong idiotype and antigen-specific response in mice.

L7 ANSWER 29 OF 37 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 9

1998:126672 Document No.: PREV199800126672. Interaction of tomato spotted wilt tospovirus (TSWV) glycoproteins with a thrips midgut protein, a potential cellular receptor for TSWV. Bandla, M. D.; Campbell, L. R.; Ullman, D. E. [Reprint author]; Sherwood, J. L.. Dep. Entomol., Univ. California, Davis, CA 95616, USA. Phytopathology, (Feb., 1998) Vol. 88, No. 2, pp. 98-104. print.

CODEN: PHYTAJ. ISSN: 0031-949X. Language: English.

AB Interactions between viral and cellular membrane **fusion proteins** mediate virus penetration of cells for many arthropod-borne viruses. Electron microscope observations and circumstantial evidence indicate insect acquisition of tomato spotted wilt virus (TSWV) (genus Tospovirus, family Bunyaviridae) is receptor mediated, and TSWV membrane glycoproteins (GP1 and GP2) serve as virus attachment proteins. The tospoviruses are plant-infecting members of the family Bunyaviridae and are transmitted by several thrips species, including Frankliniella occidentalis. Gel overlay assays and immunolabeling were used to investigate the putative role of TSWV GPs as viral attachment proteins and determine whether a corresponding cellular receptor may be present in F. occidentalis. A single band in the 50-kDa region was detected with murine monoclonal antibodies (MAbs) to the TSWV-GPs when isolated TSWV or TSWV-GPs were used to overlay separated thrips proteins. This band was not detected when blots were probed with antibody to the nonstructural protein encoded by the small RNA of TSWV or the TSWV nucleocapsid protein, nor were proteins from nonvector insects labeled. **Anti-idiotype antibodies** prepared to murine MAbs against GP1 or GP2 specifically labeled a single band at 50 kDa in Western blots and the plasmalemma of larval thrips midguts. These results support the putative role of the TSWV GPs as viral attachment proteins and identified potential cellular receptor(s) in thrips.

L7 ANSWER 30 OF 37 MEDLINE on STN

1998152124. PubMed ID: 9491424. Molecular cloning and expression of an **anti-idiotype antibody** mimicking a protective oligosaccharide of the parasite Schistosoma mansoni. Petitprez K; Grzych J M; Pierrot C; Godin C; Capron A; Khalife J. (INSERM U167 Centre

d'Immunologie et de Biologie Parasitaire, Institut Pasteur, Lille, France.. karine.petitprez@pasteur-lille.fr) . Parasitology research, (1998) Vol. 84, No. 1, pp. 38-40. Journal code: 8703571. ISSN: 0932-0113. Pub. country: GERMANY: Germany, Federal Republic of. Language: English.

AB Genes encoding the heavy and light chains of an **anti-idiotype antibody** (AB2) mimicking a protective oligosaccharide of Schistosoma mansoni were cloned and expressed as a single-chain Fv fragment. The expression in a functional state was tested using the AB1. A specific binding between sFv and AB1 was observed. Immunization with the recombinant AB2 indicates its capacity to elicit anti-S. mansoni antibodies.

L7 ANSWER 31 OF 37 MEDLINE on STN

1998082868. PubMed ID: 9422405. Disposition of basiliximab, an interleukin-2 receptor monoclonal antibody, in recipients of mismatched cadaver renal allografts. Kovarik J; Wolf P; Cisterne J M; Mourad G; Lebranchu Y; Lang P; Bourbigot B; Cantarovich D; Girault D; Gerbeau C; Schmidt A G; Soulillou J P. (Novartis Pharma Inc., Basel, Switzerland.) Transplantation, (1997 Dec 27) Vol. 64, No. 12, pp. 1701-5. Journal code: 0132144. ISSN: 0041-1337. Pub. country: United States. Language: English.

AB BACKGROUND: Basiliximab is an interleukin-2 receptor (IL-2R; CD25) chimeric monoclonal antibody for immunoprophylaxis against acute rejection in renal transplantation. Its pharmacokinetics were characterized in a multicenter open-label, prospective dose-escalation study to identify a single-dose regimen providing IL-2R-saturating serum concentrations in the critical first posttransplant month. METHODS: Thirty-two recipients of primary, mismatched cadaver kidneys were enrolled: 20 men and 12 women, who were 47+/-11 years old and weighed 65+/-12 kg. The immunosuppression regimen consisted of steroids and azathioprine from day 0 and cyclosporine from day 10. Basiliximab was infused over 30 min as a single dose preoperatively. RESULTS: Thirty patients were evaluable for basiliximab pharmacokinetics: 24 received 40 mg and 6 received 60 mg. Basiliximab was well tolerated without evidence of cytokine-release syndrome, hypersensitivity reactions, or **anti-idiotype antibody** response. Peak concentration and area under the concentration curve increased proportionally with dose. Postinfusion concentrations declined in a biphasic manner with a terminal half-life of 6.5+/-2.1 days. Weak, widely dispersed correlations were noted between body weight versus distribution volume (r=0.29) and versus clearance (r=0.45), suggesting no clinical relevance for weight-adjusted dosing. There were no apparent gender-related differences in basiliximab disposition. Previous phase II data indicated that serum concentrations in excess of 0.2 microg/ml are sufficient to saturate IL-2R epitopes on circulating T lymphocytes. Concentrations were above this threshold for 26+/-8 days (range 16 to 46) at the 40-mg dose level and for 32+/-11 days (range 22 to 51) at the 60-mg dose level. CONCLUSIONS: Total basiliximab doses of 40-60 mg were well tolerated, nonimmunogenic, and estimated to provide immunoprophylaxis to cover the first posttransplant month.

L7 ANSWER 32 OF 37 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

1996:881664 The Genuine Article (R) Number: VX026. A nine-amino acid peptide from IL-1 beta augments antitumor immune responses induced by protein and DNA vaccines. Hakim I (Reprint); Levy S; Levy R. STANFORD UNIV, MED CTR, DEPT MED, DIV ONCOL, STANFORD, CA 94305. JOURNAL OF IMMUNOLOGY (15 DEC 1996) Vol. 157, No. 12, pp. 5503-5511. ISSN: 0022-1767. Publisher: AMER ASSOC IMMUNOLOGISTS, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The idiotypic determinants of B cell lymphoma provide a tumor-specific Ag and a target for immunotherapy. We have developed several generations of idiotype vaccines that were tested in an animal model, the 38C13 mouse B cell lymphoma. Intitially we showed that effective tumor immunity was elicited by the syngeneic Id when it was conjugated to a carrier protein and mixed with an adjuvant, A subsequent

generation of Id vaccines eliminated the need for a carrier protein and for an adjuvant by incorporating cytokines into **fusion proteins** containing the Id. A third generation of vaccines consisting of naked DNA encoding the Id-granulocyte-macrophage colony-stimulating factor (GM-CSF) **fusion proteins** was equally effective in inducing tumor immunity. To determine whether Ig variable regions,in the absence of constant regions, could be immunotherapeutic in this model, we tested the use of single-chain Fv (scFv), scFv proteins, produced in bacteria, and naked DNA encoding scFv were used in this study. scFv was tested alone or fused to CM-CSF or an immunoenhancing peptide derived from IL-1 beta. Here we demonstrate that scFv-CM-CSF was effective only when injected as a protein, not as a DNA vaccine. In contrast, both scFv-IL-1 beta peptide **fusion protein** and naked DNA encoding it induced tumor immunity that protected mice from tumor challenge.

L7 ANSWER 33 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
1996:553502 Document No. 125:219041 DNA immunization induces protective immunity against B-cell lymphoma. Syrengelas, Athanasia D.; Chen, Thomas T.; Levy, Ronald (Dep. Med., Div. Oncology, Stanford Univ. School Med., Stanford Univ. Med. Center, Stanford, CA, 94305-5306, USA). Nature Medicine (New York), 2(9), 1038-1041 (English) 1996. CODEN: NAMEFI. ISSN: 1078-8956. Publisher: Nature Publishing Co..
AB Idiotypic determinants of the Ig expressed on the surface of B-cell lymphomas are tumor-specific antigens (TSAs), which can be targeted by immunotherapy. Immunization with DNA constructs encoding the idiotype (Id) of a murine B-cell lymphoma induced specific anti-Id antibody responses and protected mice against tumor challenge. Use of DNA encoding an Id/GM-CSF (idiotype/granulocyte-macrophage colony-stimulating factor) **fusion protein** improved vaccine efficacy, and xenogeneic Ig constant region determinants were required for immunogenicity. These results indicate that DNA may be a simple and efficacious means of inducing immune responses against a weak, otherwise unrecognized tumor antigen, provided that addnl. stimuli are included with the DNA.

L7 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2007 ACS on STN
1995:723253 Document No. 123:102775 Glycophorin binding protein (GBP130) fusion compositions. Prendergast, Kenneth Francis (UK). PCT Int. Appl. WO 9506737 A1 19950309, 93 pp. DESIGNATED STATES: W: CA, JP, KR, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-GB1900 19940901. PRIORITY: GB 1993-18350 19930903; GB 1994-17021 19940823.
AB Hybrid or fusion peptides formed by the fusion of two or more peptide components, where one component is derived from or is all or part of a malaria parasite red blood cell binding peptide, and the other peptide being a receptor for or capable of binding to a cytokine or other mediator of inflammation or immunity. The fusion peptides find a use in the treatment of septic shock, AIDS, and inflammatory conditions. The fusion peptides also serve as potential testing agents for use in inflammatory conditions and septic shock.

L7 ANSWER 35 OF 37 MEDLINE on STN
96075434. PubMed ID: 7493380. Development and evaluation of the specificity of a rat monoclonal **anti-idiotype antibody**, WN, to an anti-B-cell lymphoma monoclonal antibody, LL2. Losman M J; Leung S O; Shih L B; Shevitz J; Shukla R; Haraga L; Goldenberg D M; Hansen H J. (Immunomedics, Inc., Morris Plains, New Jersey 07950, USA.) Cancer research, (1995 Dec 1) Vol. 55, No. 23 Suppl, pp. 5978s-5982s. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.
AB Anti-idiotype monoclonal antibodies (Mabs) to mLL2, an anti-B-cell lymphoma and CD22-specific murine IgG2a-kappa Mab, were generated by hybridoma technology from splenocytes of Copenhagen rats immunized with mLL2 F(ab')2. Mab WN, an IgG2a-kappa, was selected based on its specific binding to mLL2 and not other IgG isotypes or anti-B-cell Mabs. In a

radioimmunoassay, WN was found to inhibit the binding of 125I-labeled mLL2 to Raji cells and to have no effect on the binding of other B-cell-reactive antibodies. Using high performance liquid chromatography analysis, WN was shown to complex specifically with both mLL2 and mLL2 Fab'. Meanwhile, we have constructed chimeric (cLL2) and humanized (hLL2) versions of LL2. Both cLL2 and hLL2 were demonstrated to retain the original antigen specificity and affinity of mLL2 [S.O. Leung et al., Proc. Am. Associate Cancer Res., 2872 (abstract), 34: 481, 1993]. The specific binding of WN to either radioiodinated or peroxidase-conjugated mLL2 was inhibited in a dose-response manner, and to a similar extent by mLL2, cLL2, and hLL2. Since the mLL2 complementarity-determining regions are the only sequences common to mLL2, cLL2, and hLL2, the result confirms that WN is specific to the antigen-binding complementarity-determining regions. A WN binding assay is currently being evaluated as a substitute for the tedious, and sometimes inconsistent, Raji cell-binding assay for the determination of LL2 immunoreactivity. In conclusion, we have developed an anti-idiotype Mab, WN, to mLL2. Its potential use as a surrogate antigen for B-cell lymphoma is under investigation.

L7 ANSWER 36 OF 37 MEDLINE on STN

96084041. PubMed ID: 7492752. A human-mouse chimeric Lym-1 monoclonal antibody with specificity for human lymphomas expressed in a baculovirus system. Hu P; Glasky M S; Yun A; Alauddin M M; Hornick J L; Khawli L A; Epstein A L. (Department of Pathology, University of Southern California School of Medicine, Los Angeles 90033, USA.) Human antibodies and hybridomas, (1995) Vol. 6, No. 2, pp. 57-67. Journal code: 9014461. ISSN: 0956-960X. Pub. country: United States. Language: English.

AB A murine anti-human B-cell monoclonal antibody, Lym-1, has shown considerable promise for the treatment of human malignant lymphomas and has been utilized as a new radioimmunotherapy for refractory lymphoma. In order to enhance its clinical potential, a genetically engineered chimeric Lym-1 (chLym-1) with murine variable regions and human gamma 1 and kappa constant regions was constructed and expressed. The goal of this study was to generate a Lym-1 reagent with decreased immunogenicity and improved effector functions. Murine Lym-1 variable region cDNAs were isolated from the murine Lym-1 hybridoma cell line, fused to gamma 1 and kappa constant region cDNAs, and expressed in an insect cell expression system with the baculovirus transfer vector pAcUW31. The chLym-1 antibody expressed in this system was correctly processed and assembled into the expected immunoglobulin monomer. Chimeric Lym-1 bound to both target antigen-bearing Raji cells and a Lym-1 **anti-idiotype antibody** and had a similar binding affinity as murine Lym-1. The chimeric and murine versions of Lym-1 were assayed for their ability to mediate antibody-dependent cellular cytotoxicity (ADCC) and to induce complement-mediated cytotoxicity (CMC) against Raji targets. Chimeric Lym-1 mediated a two-fold higher level of ADCC than murine Lym-1 and slightly lower levels of CMC than murine Lym-1. In addition, in Raji lymphoma-bearing nude mice, chLym-1 localized to the tumor with approximately equal uptake at 24 and 72 hours. Chimeric Lym-1, however, cleared from the blood of nontumor-bearing mice approximately 5 times faster than murine Lym-1 (20 h vs. 5 days), as expected for a xenogeneic protein. The improved in vitro and in vivo activities of this genetically engineered monoclonal antibody render it a new potential immunotherapeutic reagent for the treatment of human malignant lymphomas.

L7 ANSWER 37 OF 37 MEDLINE on STN

91333067. PubMed ID: 1651427. **Anti-idiotype antibodies** that mimic gp86 of human cytomegalovirus inhibit viral fusion but not attachment. Keay S; Baldwin B. (Research Service, Department of Veterans Affairs Medical Center, Baltimore, Maryland.) Journal of virology, (1991 Sep) Vol. 65, No. 9, pp. 5124-8. Journal code: 0113724. ISSN: 0022-538X. Pub. country: United States. Language: English.

AB Human cytomegalovirus (CMV) infects cells by sequential processes involving attachment, fusion with the cell membrane, and penetration of the capsid. We used two monoclonal anti-idiotype that mimic one of the

CMV envelope glycoproteins, gp86, to study its role in the early phases of CMV infection. Neither of two such antibodies inhibited virus binding to human embryonic lung (HEL) fibroblasts; however, both antibodies inhibited the fusion of CMV with HEL cells, as measured by an assay in which viral envelope is labeled with a fluorescent amphiphile (octadecyl rhodamine B chloride, or R18), resulting in increased fluorescence during fusion of virus with the cell membrane. Because these **anti-idiotype antibodies** were shown previously to bind to specific receptors on HEL cell membranes, these findings suggest that both gp86 and its cell membrane receptor may function in the fusion of human CMV with HEL cells.

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=> s l1 and anti-biotin
L8             1 L1 AND ANTI-BIOTIN

=> d l8 cbib abs
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L8 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
1996:31286 Document No.: PREV199698603421. The measurement of progesterone in serum by a non-competitive idiometric assay. Barnard, Geoff; Osher, Judith; Lichter, Shoshana; Gayer, Batya; De Boever, Josef; Limor, Rona; Ayalon, Dan; Kohen, Fortune [Reprint author]. Dep. Hormone Res., Weizmann Inst. Sci., Rehovot 76100, Israel. Steroids, (1995) Vol. 60, No. 12, pp. 824-829.
CODEN: STEDAM. ISSN: 0039-128X. Language: English.

AB A novel non-competitive idiometric time-resolved fluoroimmunoassay for the determination of serum progesterone was developed, based on the use of two types of anti-idiotypic antibody that recognize different epitopes within the hypervariable region of the primary antiprogesterone antibody. The first anti-idiotype, the betatype, competes with progesterone for an epitope of the primary antiprogesterone antibody at the binding site. The second anti-idiotype, the alphatype, binds to the antiprogesterone antibody in the presence of progesterone, but does not bind to the betatype antiprogesterone complex due to epitope proximity. In the present configuration, the biotinylated alphatype was captured onto **anti-biotin** IgG which was immobilized on microliter wells. Reaction mixtures containing europium-labeled antiprogesterone antibody complexed sequentially with progesterone in standards or serum samples and with the betatype anti-idiotypic antibody were then reacted with the immobilized alphatype anti-idiotypic antibody. After 30 min of incubation, the fluorescence of europium is measured by time-resolved fluorescence and is proportional to the concentration of progesterone over the range 0-320 nmol/ml. The method demonstrates good sensitivity, precision, and comparability with a direct competitive radioimmunoassay. The idiometric assay for progesterone is suitable for dipstick technology and biosensors.

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=> s l1 and anti-histidine
L9             0 L1 AND ANTI-HISTIDINE

=> s l1 and biopanning
L10            0 L1 AND BIOPANNING

=> s l1 and biotin fusion
L11            0 L1 AND BIOTIN FUSION

=> s l1 and histidine fusion protein
L12            0 L1 AND HISTIDINE FUSION PROTEIN

=> s l1 and binding
L13          990 L1 AND BINDING

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L14 115 L13 AND FUS?

=> s l14 and in vitro
L15 21 L14 AND IN VITRO

=> dup remove l15
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L16 11 DUP REMOVE L15 (10 DUPLICATES REMOVED)

=> d l16 1-11 cbib abs

L16 ANSWER 1 OF 11 MEDLINE on STN DUPLICATE 1
2006069759. PubMed ID: 16454995. Humoral immune responses induced by anti-idiotypic antibody **fusion** protein of 6B11scFv/hGM-CSF in BALB/c mice. Chang Xiao-hong; Ye Xue; Cui Heng; Feng Jie; Li Yi; Zhu Hong-lan; Yang Wen-lan; Fu Tian-yun; Cheng Hong-yan; Guo Hui-fang. (Gynecologic Oncology Center, Peking University People's Hospital, Beijing 100044, China.) Chinese medical journal, (2006 Jan 20) Vol. 119, No. 2, pp. 131-9. Journal code: 7513795. ISSN: 0366-6999. Pub. country: China. Language: English.

AB BACKGROUND: We have previously developed and characterized a monoclonal **anti-idiotype antibody**, designated 6B11, which mimics an ovarian carcinoma associated antigen OC166 - 9 and whose corresponding monoclonal antibody is COC166 - 9 (Ab1). In this study, we evaluate the humoral immune responses induced by the **fusion** protein 6B11 single-chain variable fragment (scFv)/human granulocyte macrophage colony-stimulating factor (hGM-CSF) and 6B11scFv in BALB/c mice. METHODS: The **fusion** protein 6B11scFv/hGM-CSF was constructed by **fusing** a recombinant single-chain variable fragment of 6B11scFv to GM-CSF. BALB/c mice were administrated by 6B11scFv/hGM-CSF and 6B11scFv, respectively. RESULTS: The **fusion** protein 6B11scFv/hGM-CSF retained **binding** to the anti-mouse F (ab) 2' and was also biologically active as measured by proliferation of human GM-CSF dependent cell TF1 **in vitro.** After immunization with the 6B11scFv/hGM-CSF and 6B11ScFv, BALB/c mice showed significantly enhanced Ab3 antibody responses to 6B11scFv/hGM-CSF compared with the 6B11scFv alone. The level of Ab3 was the highest after the first week and maintained for five weeks after the last immunization. Another booster was given when the Ab3 titer descended, and it would reach to the high level in a week. CONCLUSION: The **fusion** protein 6B11scFv/hGM-CSF can induce humoral immunity against ovarian carcinoma in vivo. We also provide the theoretical foundation for the application of the **fusion** protein 6B11scFv/hGM-CSF for active immunotherapy of ovarian cancer.

L16 ANSWER 2 OF 11 MEDLINE on STN DUPLICATE 2
2005121987. PubMed ID: 15753392. Monoclonal **anti-idiotype antibody** 6G6.C4 **fused** to GM-CSF is capable of breaking tolerance to carcinoembryonic antigen (CEA) in CEA-transgenic mice. Schwegler Christian; Dorn-Beineke Alexandra; Nittka Stefanie; Stocking Carol; Neumaier Michael. (Department of Internal Medicine and Clinical Immunology Bad Bramstedt, University of Lubeck, Lubeck, Germany.) Cancer research, (2005 Mar 1) Vol. 65, No. 5, pp. 1925-33. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Internal image anti-idiotypic antibodies are capable of mimicking tumor-associated antigens and thus may serve as surrogate for vaccination strategies in cancer patients. The monoclonal antibody (mAb) 6G6.C4 mimics an epitope specific for the human carcinoembryonic antigen (CEA) and generates a CEA-specific response (Ab3) in various experimental animals. In humans, however, 6G6.C4 only yields a very limited humoral anti-CEA reaction presumably due to tolerance against the CEA autoantigen. In this study, we investigated the CEA-specific Ab3 response in mice transgenic for the human CEA and tested whether the antigen tolerance could be overcome by **fusing** a recombinant single-chain variable

fragment of 6G6.C4 (scFv6G6.C4) to the murine granulocyte macrophage colony-stimulating factor (GM-CSF).Like mAb 6G6.C4, the **fusion** protein (scFv6G6.C4/GM-CSF) retained **binding** to the CEA-specific idiotype mAb T84.66. Also, scFv6G6.C4/GM-CSF was biologically active as measured by proliferation of the GM-CSF-dependent murine FDC-P1 cells **in vitro.** After immunization with the scFv6G6.C4/GM-CSF **fusion** protein, CEA-transgenic animals showed significantly enhanced Ab3 antibody responses to scFv6G6.C4 (P=0.005) and to CEA (P=0.012) compared with the scFV6G6.C4 alone. Sera from mice immunized with the **fusion** protein specifically recognized CEA in Western blot analyses with no cross-reaction to CEA-related antigens. Finally, the Ab3 antisera detected single CEA-expressing tumor cells in suspension as shown by flow cytometry. Taken together, these data show in a model antigenically related to the human system that vaccination with scFv6G6.C4/GM-CSF improves vaccination against an endogenous tumor-associated antigen resulting in a highly specific humoral Ab3 response in vivo that is capable of bind single circulating CEA-positive tumor cells.

L16 ANSWER 3 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

2005:123044 The Genuine Article (R) Number: 890FO. Construction and selection of human anti-idiotypic antibody single chain variable fragments or CDR3 fraguments of nasopharyngeal carcinoma. He X; Li G (Reprint); Zhu J. Cent S Univ, Xiang Ya Sch Med, Canc Res Inst, Changsha 410078, Hunan, Peoples R China (Reprint). libsun@public.cs.hn.cn. JOURNAL OF EXPERIMENTAL & CLINICAL CANCER RESEARCH (DEC 2004) Vol. 23, No. 4, pp. 607-615. ISSN: 0392-9078. Publisher: APSIT ASSOC PROM STUD IMMUNOL TUMOR, VIALE REGINA ELENA 291, 00161 ROME, ITALY. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Peripheral blood mononuclear cells (PBMCs) of patients with NPC were immunized **in vitro** by anti-NPC monoclonal antibody FC2 and transformed by Epstein-Barr virus (EBV). Detection showed that of 10 NPC patients, 8 patients' B cells immunized by FC2 and transformed by EBV produced anti-idiotypic antibodies to NPC. Five types of V genes and 7 types of V-L genes were obtained by RT-PCR amplification and then connected with (Gly(4)Ser)(3) linker to form 14 types of scFv genes. ScFv genes digested with Sfi I were cloned into vector **fUSE5** and transformed into E.coli MC1061. Phage anti-idiotypic antibody library with 1.5x10$ clones was obtained. After four rounds of panning, 270 phage clones were selected randomly and 91 FC2-positive clones were obtained by Sandwich ELISA, the positive ratio was 33.7%. 5 clones (D83 E92: G22, I50, I54), which might display beta type Ab2 scFv, were selected by **binding** inhibition test. These 5 phage anti-idiotypic antibodies were further analyzed by DNA sequencing. The VDJ regions of G22, I50, I54 belonged to VH4-39-D4-11-JH3-linker-V1-19-JL2, VH4-4-D4-11-JH6 and VH4-31-D4-11-JH6, respectively. E92 had the same VDJ regions with G22: D83 had the same VDJ regions with I50. So, a strategy for preparing and selecting beta type Ab2 scFv or CDR by means of immunization **in vitro**, EBV transformation and phage display technique is feasible, which paves a way for preparing cancer vaccine using type Ab2 scFv.

L16 ANSWER 4 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

2002:695094 The Genuine Article (R) Number: 584GW. Single-chain Fv fragments derived from an anti-11-deoxycortisol antibody affinity, specificity, and idiotype analysis. Kobayashi N; Shibahara K; Ikegashira K; Shibusawa K; Goto J (Reprint). Tohoku Univ, Grad Sch Pharmaceut Sci, Aoba Ku, Sendai, Miyagi 9808578, Japan (Reprint). STEROIDS (JUL 2002) Vol. 67, No. 8, pp. 733-742. ISSN: 0039-128X. Publisher: ELSEVIER SCIENCE INC, 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Single-chain Fv fragments (scFvs) against a corticosteroid, I I-deoxycortisol (I I-DC), have been generated as a template antibody fragment from which a comprehensive mutated antibody library containing

various anti-steroid antibodies could be constructed. The cDNAs encoding variable heavy (V-H) and light (V-L) domains of a mouse anti-11-DC antibody(CET-M8), were amplified by RT-PCR, combined via a common linker to construct the sequence of 5'-V-H-(Gly(4)Ser)(3)-V-L-3, and cloned into a phagemid vector, pEXmide 5. The phage clones exhibiting **binding** activity to 11-DC were isolated after single panning against a hapten-immobilizing immunotube. The scFv gene in one of these clones was reamplified to introduce the ochre codons, and then expressed in the bacterial periplasm as the soluble antibody fragment. Two different scFvs (#6 and #12) were cloned, whose **binding** characteristics were examined by a radioinummoassay using a tritium-labeled 11-DC. Both of them showed high affinity (K-a = 1.3 x 10(10) M-1) and practical specificity (cross-reactivity: cortisol, <0.2%; cortisone, <0.3%) to 11-DC, and furthermore, strong reactivity with an **anti-idiotype antibody** which recognizes the paratope of CET-M8. These results suggest that the present scFvs retain the three-dimensional structure of the paratope of the original monoclonal antibody.

L16 ANSWER 5 OF 11 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

1998:453019 Document No.: PREV199800453019. Treatment of B-cell lymphoma with chimeric IgG and single-chain Fv antibody-interleukin-2 **fusion** proteins. Liu, Shih-Jen; Sher, Yuh-Pyng; Ting, Chou-Chik; Liao, Kuang-Wen; Yu, Cheng-Ping; Tao, Mi-Hua [Reprint author]. Inst. Biomed. Sciences, Academia Sinica, Taipei 11529, Taiwan. Blood, (Sept. 15, 1998) Vol. 92, No. 6, pp. 2103-2112. print.
CODEN: BLOOAW. ISSN: 0006-4971. Language: English.

AB Anti-idiotype (Id) antibodies (Abs) have been shown to be effective in treatment of B-cell lymphoma in animal models and in clinical trials. The combination of interleukin-2 (IL-2) can augment the therapeutic effect of anti-id Absolute To further improve the power of the combined therapy, a monoclonal anti-Id Ab, S5A8, specifically recognizing a murine B-cell lymphoma 38C13, was genetically modified to contain the IL-2 domain and thus use the unique targeting ability of Abs to direct IL-2 to the tumor site. Two forms of the anti-Id-IL-2 **fusion** proteins were constructed: one configuration consisting of mouse-human chimeric IgG (chS5A8-IL-2) and the other containing only the variable light (VL) and variable heavy (VH) Ab domains covalently connected by a peptide linker (scFvS5A8-IL-2). Both forms of the anti-Id-IL-2 **fusion** proteins retained IL-2 biological activities and were equivalent in potentiating tumor cell lysis in **vitro.** In contrast, the antigen-**binding** ability of scFvS5A84L-2 was 30- to 40-fold lower than that of the bivalent chS5A8-IL-2. Pharmacokinetic analysis showed that scFvS5A8-IL-2 was eliminated about 20 times faster than chS5A8-IL-2. Finally, it was shown that chS5A8-IL-2 was very proficient in inhibiting 38C13 tumor growth in vivo, more effectively than a combined therapy with anti-id Abs and IL-2, whereas scFvS5A8IL-2 did not show any therapeutic effect. These results demonstrate that the anti-Id-IL-2 **fusion** protein represents a potent reagent for treatment for B-cell lymphoma and that the intact IgG **fusion** protein is far more effective than its single-chain counterpart.

L16 ANSWER 6 OF 11 MEDLINE on STN DUPLICATE 3

96084041. PubMed ID: 7492752. A human-mouse chimeric Lym-1 monoclonal antibody with specificity for human lymphomas expressed in a baculovirus system. Hu P; Glasky M S; Yun A; Alauddin M M; Hornick J L; Khawli L A; Epstein A L. (Department of Pathology, University of Southern California School of Medicine, Los Angeles 90033, USA.) Human antibodies and hybridomas, (1995) Vol. 6, No. 2, pp. 57-67. Journal code: 9014461. ISSN: 0956-960X. Pub. country: United States. Language: English.

AB A murine anti-human B-cell monoclonal antibody, Lym-1, has shown considerable promise for the treatment of human malignant lymphomas and has been utilized as a new radioimmunotherapy for refractory lymphoma. In order to enhance its clinical potential, a genetically engineered chimeric Lym-1 (chLym-1) with murine variable regions and human gamma 1 and kappa

constant regions was constructed and expressed. The goal of this study was to generate a Lym-1 reagent with decreased immunogenicity and improved effector functions. Murine Lym-1 variable region cDNAs were isolated from the murine Lym-1 hybridoma cell line, **fused** to gamma 1 and kappa constant region cDNAs, and expressed in an insect cell expression system with the baculovirus transfer vector pAcUW31. The chLym-1 antibody expressed in this system was correctly processed and assembled into the expected immunoglobulin monomer. Chimeric Lym-1 bound to both target antigen-bearing Raji cells and a Lym-1 **anti-idiotype antibody** and had a similar **binding** affinity as murine Lym-1. The chimeric and murine versions of Lym-1 were assayed for their ability to mediate antibody-dependent cellular cytotoxicity (ADCC) and to induce complement-mediated cytotoxicity (CMC) against Raji targets. Chimeric Lym-1 mediated a two-fold higher level of ADCC than murine Lym-1 and slightly lower levels of CMC than murine Lym-1. In addition, in Raji lymphoma-bearing nude mice, chLym-1 localized to the tumor with approximately equal uptake at 24 and 72 hours. Chimeric Lym-1, however, cleared from the blood of nontumor-bearing mice approximately 5 times faster than murine Lym-1 (20 h vs. 5 days), as expected for a xenogeneic protein. The improved **in vitro** and in vivo activities of this genetically engineered monoclonal antibody render it a new potential immunotherapeutic reagent for the treatment of human malignant lymphomas.

L16 ANSWER 7 OF 11 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
1993:102349 Document No.: PREV199395057545. Evidence from the anti-idiotypic network that the acetylcholine receptor is a rabies virus receptor. Hanham, Catherine A.; Zhao, Feisha; Tignor, Gregory H. [Reprint author]. Yale Arbovirus Res. Unit, Dep. Epidemiol. Public Health, Yale University Sch. Med., New Haven, Conn. 06510, USA. Journal of Virology, (1993) Vol. 67, No. 1, pp. 530-542.
CODEN: JOVIAM. ISSN: 0022-538X. Language: English.

AB We have developed idiotype-anti-idiotype monoclonal antibodies that provide evidence of rabies virus **binding** to the acetylcholine receptor (AChR). Hybridoma cell lines 7.12 and 7.25 resulted after **fusion** of NS-1 myeloma cells with spleen cells from a BALB/c mouse immunized with rabies virus strain CVS. Antibody 7.12 reacted with viral glycoprotein and neutralized virus infectivity in vivo. It also neutralized infectivity in **vitro** when PC12 cells, which express neuronal AChR, but not CER cells or neuroblastoma cells (clone N18), which have no AChR,were used. Antibody 7.25 reacted with nucleocapsid protein. Anti-idiotypic monoclonal antibody B9 was produced from **fusion** of NS-1 cells with spleen cells from a mouse immunized with 7.12 Fab. In an enzyme-linked immunosorbent assay and immunoprecipitation, B9 reacted with 7.12, polyclonal rabies virss immune dog serum, and purified AChR. The **binding** of B9 to 7.12 and immune dog serum was inhibited by AChR. B9 also inhibited the **binding** of 7.12 to rabies virus both in **vitro** and in vivio. Indirect immunoflourescence revealed that B9 reacted at neuromuscular junctions of mouse tissue. B9 also reacted in indirect immunofluorescence with distinct neurons in mouse and monkey brain tissue as well as with PC12 cells. B9 staining of neuronal elements in brain tissues of rabies virus-infected mice was greatly reduced. Rabies virus inhibited the **binding** of B9 to PC12 cells. Mice immuniized with BV9 developed low-titer rabies virus-neutralizing antibody. These mice were protected from lethal intramuscular rabies virus challenge. In contrast, anti-idiotypic antibody raised against nucleocapsid antibody 7.25 did not react with AChR.

L16 ANSWER 8 OF 11 MEDLINE on STN
86169634. PubMed ID: 3485677. Influence of avidity and idiotope recognition on the modulation of surface immunoglobulin on malignant human B cells by rat monoclonal **anti-idiotype antibodies.** Campbell M; Bieber M; Levy R; Teng N N. Journal of immunology (Baltimore, Md. : 1950), (1986 Apr 15) Vol. 136, No. 8, pp.

2983-8. Journal code: 2985117R. ISSN: 0022-1767. Pub. country: United States. Language: English.

AB Immunoglobulin (Ig) was obtained from the tumor cells of patients with B cell malignancies by somatic cell hybridization to mouse-human heteromyeloma cells. The human Ig secreted by one of these hybridomas was used as an immunogen for the production of rat monoclonal antibodies (mAb). A panel of mAb specific for the idiotype (Id) was produced and characterized. Competitive **binding** studies that made use of [Se]-labeled anti-Id mAb (MAID) demonstrated several distinct yet topographically related Id on the Id-bearing Ig. These antibodies were shown to have avidities ranging from 0.38 to 45.3 X 10(8) l/mol. Additional studies demonstrated varying degrees of antigenic modulation of surface Id **in vitro** by MAID. The degree of modulation correlates with antibody avidity.

L16 ANSWER 9 OF 11 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

82068358 EMBASE Document No.: 1982068358. Immune response to phosphorcholine. IX. Characterization of hybridoma anti-TEPC15 antibodies. Wittner M.K.; Bach M.A.; Kohler H.. Chicago Inst., Rabida-Univ., Chicago, IL 60649, United States. Journal of Immunology Vol. 128, No. 2, pp. 595-599 1982.
CODEN: JOIMA3
Pub. Country: United States. Language: English.
Entered STN: 911209. Last Updated on STN: 911209

AB Hybridoma antibodies against the PC-**binding** T15 BALB/c myeloma protein were raised by cell **fusion** with anti-T15 A/He immune cells. The idiotype specificity of these monoclonal anti-T15 antibodies was determined with a panel of different myeloma and hybridoma immunoglobulins. Two types of anti-T15 antibodies are seen. One reacts with a number of different IgA myeloma proteins and with serum IgA of certain strains of mice; this reactivity most likely is due to allotypy. The other group consists of anti-T15 antibodies that are specific for the T15 idiotype and are therefore termed anti-idiotypic. The **bindings** of the **anti-idiotype antibodies** to T15 were specifically inhibited by T15 F(ab')2 but not by other PC-**binding** myeloma proteins of different idiotypes. The relationship of the idiotype-specific anti-T15 antibodies to the PC-**binding** site of the T15 idiotype was analyzed by hapten inhibition of anti-idiotypic **binding** and by inhibition of BALB/c anti-PC splenic hemolytic plaque formation. Anti-T15 antibodies, for which the T15 **binding** is inhibited by PC or PC-BSA, also specifically inhibit anti-PC plaque formation. These antibodies are labeled site and near-site anti-idiotypic antibodies. Site and near-site-specific anti-idiotypic antibodies recognize different idiotopes on the T15 molecules. The possible differential biologic activities of these anti-idiotopes in idiotype network regulation is considered.

L16 ANSWER 10 OF 11 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

82060597 EMBASE Document No.: 1982060597. The immune response to ferredoxin: Characterization of a major idiotype in serum using monoclonal antibody derived by cell **fusion.** Weaver M.S.; Sikora L.; Levy J.G.. Dept. Microbiol., Univ. British Columbia, Vancouver, BC V6T IW5, Canada. Molecular Immunology Vol. 19, No. 1, pp. 105-117 1982.
CODEN: IMCHAZ
Pub. Country: United Kingdom. Language: English.
Entered STN: 911209. Last Updated on STN: 911209

AB Ferredoxin (Fd) is a low mol. wt protein (6000 d) isolated from Clostridium pasteurianum. This antigen possesses two non-cross-reactive antigenic determinants and engenders a restricted antibody response in selected strains of mice. Immunochemical studies of Fd have shown that antibody responses are confined to two sequences of between five and seven amino acids in extent located at the NH2- and COOH-termini of the molecule. Serum antibodies from responder strains of mice bind these epitopes in proportions which are regulated by genes mapping in the

Ir-region of the H-2 complex. A hybrid cell line secreting monoclonal Fd-**binding** antibody has been isolated from an immune mouse through **fusion** with the SP2/0 myeloma cell line. The resulting antibody binds to a single determinant located at the NH2-terminal of the molecule. An **anti-idiotype antibody** to this monoclonal antibody was raised in rabbits. After appropriate absorptions, its specificity for the paratopic regions of the hybridoma antibody was established by demonstrating its displacement from reaction with the idiotype by Fd. Analysis of the distribution of the hybridoma idiotype in serum antibodies from congenic mouse strains indicates that it is a major idiotype expressed in different inbred strains sharing identity at the Igh-1 locus.

L16 ANSWER 11 OF 11 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

81059120 EMBASE Document No.: 1981059120. Antigen-**binding** diversity and idiotypic cross-reactions among hybridoma autoantibodies to DNA. Andrzejewski Jr. C.; Rauch J.; Lafer E.; et al.. Dept. Med., Tufts Univ. Sch. Med., Boston, Mass. 02111, United States. Journal of Immunology Vol. 126, No. 1, pp. 226-231 1981.
CODEN: JOIMA3
Pub. Country: United States. Language: English.
Entered STN: 911209. Last Updated on STN: 911209

AB Hybridoma anti-DNA antibodies produced by clones derived from **fusions** of spleen cells from unimmunized MRL/I mice with BALB/c plasmacytomas were examined for their **binding** to nucleic acid antigens and for their reactivities with **anti-idiotype antibodies.** All the antibodies bound to a variety of nucleic acids and polynucleotides. This finding suggests that epitopes shared by nucleic acid antigens can account for some of the serologic diversity in lupus serum. Each hybridoma autoantibody had a unique pattern of reactivity with nucleic acid antigens, yet cross-reactions among some of them were found by analyses with **anti-idiotype antibodies.** These cross-reactions were due to similarities in the antigen-**binding** regions of the autoantibodies because anti-idiotype Ig blocked the **binding** of the hybridoma antibody DNA; moreover, polynucleotides inhibited the idiotype anti-idiotype reaction. Cross-reactive idiotypes were found not only among hybridoma anti-DNA antibodies produced by clones derived from the same MRL/I mice but also among antibodies produced by clones derived from different MRL/I mice. The latter finding suggests that families of germ line genes may encode some auto-antibodies against DNA.

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=>  s method
L17   16646312 METHOD

=> s l17 and screening
L18     408192 L17 AND SCREENING

=> s l18 and anti-idiotypic antibod?
L19         41 L18 AND ANTI-IDIOTYPIC ANTIBOD?

=> dup remove l19
PROCESSING COMPLETED FOR L19
L20          28 DUP REMOVE L19 (13 DUPLICATES REMOVED)

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L20  ANSWER 1 OF 28  EMBASE  COPYRIGHT (c) 2007 Elsevier B.V. All rights
     reserved on STN
2006265677  EMBASE  Internal images: Human anti-idiotypic Fab antibodies mimic
     the IgE epitopes of grass pollen allergen Phl p 5a. Hantusch B.;
     Knittelfelder R.; Wallmann J.; Krieger S.; Szalai K.; Untersmayr E.; Vogel
     M.; Stadler B.M.; Scheiner O.; Boltz-Nitulescu G.; Jensen-Jarolim E.. E.
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Jensen-Jarolim, Center of Physiology and Pathophysiology, Medical University of Vienna, Waehringer Guertel 18-20, A-1090 Vienna, Austria. erika.jensen-jarolim@meduniwien.ac.at. Molecular Immunology Vol. 43, No. 14, pp. 2180-2187 2006.
Refs: 38.
ISSN: 0161-5890. CODEN: IMCHAZ
S 0161-5890(06)00015-0. Pub. Country: United Kingdom. Language: English. Summary Language: English.
Entered STN: 20060703. Last Updated on STN: 20060703

AB Background: The role of **anti-idiotypic antibodies** in allergic disease is still poorly understood. According to Jerne, **anti-idiotypic antibodies** to IgE should represent internal images of an allergen. Our aim was to ultimately prove whether this hypothesis holds true in allergy. Here, we describe the selection of **anti-idiotypic antibodies** against Phl p 5a-specific IgE directly from the B-cell repertoire of a grass pollen allergic individual. **Methods**: Taking Phleum pratense grass pollen allergen Phl p 5 as a model, we selected **anti-idiotypic antibodies** against allergen-specific IgE directly from the B-cell repertoire of an allergic individual. We screened a combinatorial phage display library of human monovalent antibody heavy and light chain fragments (Fabs) with anti-Phl p 5a-IgE to identify and characterize Fabs with anti-idiotypic specificity. Results: Five different Fab clones with anti-idiotypic specificity for anti-Phl p 5a-IgE were identified. Their hypervariable regions revealed partial sequence homology with solvent accessible antigenic sites of Phl p 5a, which have been identified by our previous mimotope approach. Phagemid DNA derived from the phage clones was used to produce two soluble recombinant anti-idiotypic Fab clones in E. coli. As a proof of molecular mimicry, both Fabs induced anti-Phl p 5a-specific antibodies in immunized BALB/c mice. Molecular modeling of the heavy and light chain hypervariable loops of the anti-idiotypic Fabs illustrated structural similarity with dominant IgE epitopes of Phl p 5a. Conclusion: In this straightforward phage technology approach, antibodies with anti-idiotypic specificities could be isolated from a human allergic's repertoire. As predicted by the immune network hypothesis, their hypervariable domains mimic IgE epitopes like internal images and, more importantly, induce allergen-specific immune responses in the absence of the allergen.

L20 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
2005:523322 Document No. 143:58497 **Methods** for producing mouse model for autoimmune neuritis by immunizing with IGv domain of peripheral nerve myelin P0 protein peptide fused to pertussis toxin and its use in diagnosis and drug **screening.** Miletic, Hrvoje (Cell Center Cologne G.m.b.H., Germany). PCT Int. Appl. WO 2005053751 A1 20050616, 53 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IS, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.
APPLICATION: WO 2004-EP13636 20041201. PRIORITY: EP 2003-27483 20031201.

AB The present invention relates to **methods** for producing mouse model for autoimmune neuritis by administering IGv domain of peripheral nerve myelin P0 protein and their use in diagnosis and drug **screening.** Peptides derived from the Igv domain of myelin P0 protein constitute immunodominant epitopes which when combined with pertussis toxin can induce autoimmune neuritis in mice. Preferably, amino acids 106-125 of myelin P0 protein induce autoimmune neuritis in C57BL/6 mice. **Anti-idiotypic antibodies** against myelin P0 protein peptides are provided for diagnosis and therapy.

L20 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
2005:182712 Document No. 142:278749 Anti-Lewis y **anti-idiotypic antibodies.** Liu, Zhanqi; Scott, Andrew Mark; Smyth, Fiona Elizabeth (Wyeth, John, and Brother Ltd., USA; Ludwig Institute for Cancer Research). PCT Int. Appl. WO 2005019271 A1 20050303, 39 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-US25789 20040810. PRIORITY: US 2003-495557P 20030814.

AB The authors disclose anti-idiotype antibodies specific for anti-Lewis y monoclonal antibodies. Also disclosed is an ELISA **screening method** for mAbs produced by hybridoma clones with specific binding to the variable regions of humanized anti-Lewis y hu3S193 antibody. Addnl., the present invention provides a hybridoma capable of producing an anti-idiotype antibody specific for anti-Lewis Y monoclonal antibody. A further aspect of the invention is to provide a hybridoma, which is specific for anti-Lewis Y monoclonal antibody selected from the group consisting of LMH-1, LMH-2, LMH-3, or LMH-4. The present invention is also directed against a **method** to detect HAMA, HACA and HAHA responses using the antibody of the invention.

L20 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
2004:718571 Document No. 141:242041 Antibodies, fragments or molecules capable of modulating poliovirus receptor or CD155 and cell adhesion to treat proliferative disease, cancer and metastasis. Unger, Christine Margarete; Beste, Gerald; Zehetmeier, Carolin; Lain, Blanca; Torella, Claudia; Jay, Daniel G.; Eustace, Brenda K.; Sloan, Kevin Ernest (Xerion Pharmaceuticals A.-G., Germany; Tufts University). PCT Int. Appl. WO 2004074324 A2 20040902, 87 pp. DESIGNATED STATES: W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-EP1637 20040219. PRIORITY: US 2003-450064P 20030224; EP 2003-12314 20030528.

AB The present invention relates to the identification, the isolation and the use of mols. interfering with the function(s) mediated by the poliovirus receptor (PVR) or CD155 on cells. The mols. can be used for the treatment of proliferative disease or cells having a metastatic potential, metastasis and cancer. Further **methods** are provided that are useful for **screening** and isolating mols., scFvs and ligands which have the capacity to modulate PVR-mediated adhesion or invasion potential of cells.

L20 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
2004:41521 Document No. 140:110121 Antibodies specific to soluble form of carbonic anhydrase IX (s-CA IX) for diagnosis, prognosis and therapy of precancerous and cancerous conditions. Zavada, Jan; Pastorekova, Silvia; Pastorek, Jaromir; Zavadova, Zuzanna (Bayer Corporation, USA; Institute of Virology). PCT Int. Appl. WO 2004005348 A1 20040115, 159 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,

ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.
APPLICATION: WO 2003-US5137 20030222. PRIORITY: US 2002-383068P 20020523; US 2002-431499P 20021205.

AB Disclosed herein among other MN/CA IX-related inventions is the discovery of a soluble MN/CA IX (s-CA IX) in body fluids, such as, urine and serum. Said s-CA IX comprises the extracellular domain of CA IX or portions thereof. The predominant s-CA IX species is the extracellular domain comprising a proteoglycanlike (PG) domain and carbonic anhydrase (CA) domain, and having a mol. weight of about 50/54 kilodaltons (kd) upon Western blot. A smaller s-CA IX form of about 20 to about 30 kd comprising the CA domain or parts thereof, not linked to the PG domain, has also been found in body fluids. Also disclosed are diagnostic/prognostic **methods** for precancer and cancer that detect or detect and quantitate said s-CA IX in body fluids, particularly the CA IX extracellular domain comprising the PG and CA domains having a mol. weight of about 50/54 kd. Also disclosed herein is the coexpression of CA IX and HER-2/neu/c-erbB-2 that provides parallel, alternative and potentially synergistic diagnostic/prognostic and therapeutic strategies for pre-cancer and cancer.

L20 ANSWER 6 OF 28 MEDLINE on STN
2004071875. PubMed ID: 14960228. Construction and **screening** of human anti-idiotypic single chain antibodies of nasopharyngeal carcinoma. He Xiao-Juan; Li Guan-Cheng; Zhu Jian-Gao; Li Yue-Hui; Zhou Guo-Hua. (Cancer Research Institute, Xiangya Medical School, Central South University, Changsha, Hunan, PR China.) Ai zheng = Aizheng = Chinese journal of cancer, (2004 Feb) Vol. 23, No. 2, pp. 124-9. Journal code: 9424852. ISSN: 1000-467X. Pub. country: China. Language: Chinese.

AB BACKGROUND & OBJECTIVE: The potential of **anti-idiotypic antibody** as a surrogate of tumor antigen for cancer therapy has been demonstrated in clinical investigations. But at present, many **anti-idiotypic antibodies** are mouse-original antibodies, which can cause human anti-mouse antibody (HAMA) response and decrease the curative effect. The objective of this study was to construct phage human **anti-idiotypic antibody** library and select beta type anti-idiotypic single chain antibodies bearing the internal image of the nasopharyngeal carcinoma (NPC) associated antigen to overcome human anti- mouse antibody response caused by application of mouse-original **anti-idiotypic antibody**. **METHODS**: Peripheral blood mononuclear cells (PBMCs) of patients with NPC were immunized in vitro by anti-NPC monoclonal antibody FC2 and transformed by Epstein-Barr virus (EBV). V(H) and V(L) genes were amplified by RT-PCR and combined to single chain fragments of variable region (scFv) genes. ScFv genes were cloned into vector fUSE5 and transformed into E.coli MC1061 to construct the scFv-displaying phage library. After four rounds of panning with monoclonal antibody (mAb) FC2,the beta type Ab2 scFv were selected by Sandwich ELISA and binding inhibition test. RESULTS: Of 10 NPC patients, 8 patients showed their B cells immunized by FC2 and transformed by EBV produced **anti-idiotypic antibodies** to NPC.
Five types of VH genes and 7 types of V(L) genes were obtained by RT-PCR amplification and then connected to form 14 scFv genes. ScFv genes were transducted into E.coli MC1061. The library capacity was 1.5x10(8) clones. After panning, 270 phage clones were selected randomly and 91 FC2-positive clones were obtained by Sandwich ELISA, the positive ratio was 33.7%. Five clones,which might display beta type Ab2 scFv, were selected by binding inhibition test. CONCLUSION: The strategy for preparing phage **anti-idiotypic antibody** library and selecting beta type Ab2 scFv by immunization in vitro, EBV transformation, and phage display technique is feasible, which provide a way for preparing cancer vaccine using beta type Ab2 scFv.

L20 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
2003:951065 Document No. 140:4079 Idiotype mimics and **anti-**

idiotypic antibodies for treatment of autoimmune disease. Nur, Israel; Shoenfeld, Yehuda (Omrix Biopharmaceuticals Inc., USA). PCT Int. Appl. WO 2003099868 A2 20031204, 43 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-IL424 20030522. PRIORITY: US 2002-383136P 20020528.

AB The authors disclose a **method** for identifying mols. which mimic an idiotype of an autoimmune disease-associated antibodies. The **method** comprises the following steps: (a) purifying autoantibodies from sera of one or more patients afflicted with the autoimmune disease; (b) binding the autoantibodies to a solid phase to form an affinity matrix; (c) contacting pooled plasma or B cells comprising Igs with the affinity matrix followed by removal of unbound plasma components; (d) eluting bound **anti-idiotypic antibodies** (anti-Id) from the matrix; (e) providing a mol. library comprising a plurality of mol. members; and (e) contacting the anti-Id with the mol. library and isolating those bound mols. which are bound by the anti-Id, the bound mols. being mols. which mimic an idiotype of autoantibodies. In one example, anti-idiotype antibodies for lupus anti-dsDNA autoantibodies are isolated and used to screen a phage display library for peptide mimics of anti-dsDNA autoantibody idiotypes.

L20 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

2003:396373 Document No. 138:397249 Eukaryotic expression libraries with cloned sequences integrated at a specific site in host genome and their use in directed evolution and drug **screening.** Huse, William D. (USA). U.S. Pat. Appl. Publ. US 2003096401 A1 20030522, 57 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-997209 20011128. PRIORITY: US 2000-367370P 20001128.

AB Eukaryotic expression libraries that use cells other than a yeast host are described. The libraries are distinguished by having the transgene integrated at the same site in the genome of all members of the library. These cells may be used in **screening** a library of variants of an initial sequence, e.g. in directed evolution or in drug **screening**. Site-specific recombination systems such as cre/lox of FLP/FRT are used to integrate the foreign DNA into a preferred site in a host cell. Use of the **method** to optimize an **anti-idiotypic antibody** to Ley antigen and create novel variants of butyrylcholinesterase is demonstrated.

L20 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

2002:754169 Document No. 137:277795 Transgenic mouse produced human antibodies against mitochondrial antigen for treating primary biliary cirrhosis. Gershwin, M. Eric (USA). PCT Int. Appl. WO 2002076406 A2 20021003, 150 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US9694 20020327. PRIORITY: US 2001-279052P 20010327; US 2001-323920P 20010921.

AB The present invention provides a **method** of making an isolated human monoclonal antibody, said antibody binds a mitochondrial antigen bound by a human autoantibody found in patients with PBC. Said **method** involves using a transgenic non-human animal that has the ability to make human antibodies. The present invention also relates to a

human monoclonal antibody that binds a mitochondrial antigen bound by a human autoantibody found in patients with PBC as well as cell line making this antibody. The present invention also relates to a transgenic non-human animal that has the ability to make human antibodies, wherein said animal makes a human monoclonal antibody that specifically binds a mitochondrial antigen bound by a human autoantibody found in patients with primary biliary cirrhosis. This invention also relates to **methods** of identifying antagonists of the antibodies that bind a mitochondrial antigen bound by a human autoantibody found in patients with PBC. The present invention also provides an isolated protein bound by human monoclonal antibody 3E7, wherein said isolated protein is a mitochondrial protein and has a mol. weight of approx. 100 kilodaltons as determined by SDS-PAGE.

L20 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
2002:696001 Document No. 137:231370 Erythroid band 3 antigenic peptides, MSP-1 protein and Plasmodium polypeptides for preventing invasion of malaria parasite into erythrocytes. Chishti, Athar H.; Oh, S. Steven; Liu, David; Goel, Vikas (St. Elizabeth's Medical Center, Inc., USA). PCT Int. Appl. WO 2002070542 A2 20020912, 163 pp. DESIGNATED STATES: W: AU, BR, CA, CN, IN, JP, KR, SG, ZA; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US6415 20020301. PRIORITY: US 2001-272930P 20010302.

AB The invention provides peptides derived from erythroid Band 3 protein, which selectively bind to merozoite surface protein-1 (MSP-1), and/or one or more of the malaria polypeptides: BBP-1, BBP-2, BBP-3, BBP-4, BBP-5, BBP-6, RhopH3, and ABRA and prevent infection by the parasite of a Band 3-expressing cell, such as an erythrocyte. The invention also provides the isolated polypeptides BBP-1, BBP-2, BBP-3, BBP-4, BBP-5, BBP-6, RhopH3, and/or ABRA as well as peptides derived from MSP-1, which selectively bind to erythroid Band 3 protein and prevent parasite invasion into a Band 3-expressing cell, and prevent Plasmodium infection. **Methods** of using the malaria and MSP1 polypeptides of the invention for malaria prevention and/or treatment (e.g. in vaccines) are also provided. Antibodies that bind to the Band 3 polypeptides and **anti-idiotypic antibodies** thereto also are provided. **Methods** for selecting agents which inhibit Band 3-mediated parasite entry into target cells and **methods** of treatment which involve the polypeptides, antibodies, and **anti-idiotypic antibodies** also are provided.

L20 ANSWER 11 OF 28 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
2003:95699 Document No.: PREV200300095699. **Anti-idiotypic antibody** as the surrogate antigen for cloning scFv and its fusion proteins. Cheung, Nai-Kong V.; Guo, Hong-Fen; Modak, Shakeel; Cheung, Irene Y. [Reprint Author]. Department of Pediatrics, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY, 10021, USA. cheungn@mskcc.org. Hybridoma and Hybridomics, (December 2002) Vol. 21, No. 6, pp. 433-443. print.
ISSN: 1536-8599 (ISSN print). Language: English.

AB Single-chain variable fragment (ScFv) is a versatile building block for novel targeting constructs. However, a reliable **screening** and binding assay is often the limiting step for antigens that are difficult to clone or purify. **Anti-idiotypic antibodies** may be useful as surrogate antigens for cloning scFv and their fusion proteins. 8H9 is a murine IgG1 monoclonal antibody (MAb) specific for a novel antigen expressed on the cell surface of a wide spectrum of human solid tumors, but not in normal tissues. Rat anti-8H9-idiotypic hybridomas (clones 2E9, 1E12, and 1F11) were produced by somatic cell fusion between rat lymphocytes and mouse SP2/0 myeloma. In direct binding assays enzyme-linked immunosorbant assay-(ELISA)-they were specific for the 8H9 idiotope. Using 2E9 as the surrogate antigen, 8H9-scFv was cloned from hybridoma cDNA by phage display. 8H9scFv was then fused to human-gamma1-CH2-CH3 cDNA for transduction into CHO and NSO cells. High

expressors of mouse scFv-human Fc chimeric antibody were selected. The secreted homodimer reacted specifically with antigen-positive tumor cells by ELISA and by flow cytometry, inhibitable by the **anti-idiotypic antibody.** The reduced size resulted in a shorter half-life in vivo, while achieving comparable tumor to nontumor ratio as the native antibody 8H9. However, its in vitro activity in antibody-dependent cell-mediated cytotoxicity was modest.

L20 ANSWER 12 OF 28 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

2002:597042 Document No.: PREV200200597042. Alternative **methods** of peptide mimicry for capsular polysaccharides. Prinz, D. M. [Reprint author]; Smithson, L. [Reprint author]; Westerink, M. [Reprint author]. Medical College of Ohio, Toledo, OH, USA. Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 198. print. Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology.
ISSN: 1060-2011. Language: English.

AB Neisseria meningitidis is a gram-negative diplococcus that is a major cause of morbidity and mortality worldwide. The present capsular polysaccharide vaccine is poorly immunogenic in children less than two years of age due to the TI nature of the immune response. An alternative approach to elicit a TD response to a carbohydrate antigen is through peptide mimicry of the polysaccharide capsule. Several studies have demonstrated that a TD immune response can be induced to a peptide that mimics the nominal antigen. This suggests that peptide mimicry may be an effective alternative to eliciting a TD anti-MCPS immune response. In this study, we have selected two peptide mimics of MCPS, Pep1C and Pep2C, by **screening** a phage display library with the 1E4 mAb specific for N. meningitidis serogroup C. This monoclonal antibody has previously been used to select an **anti-idiotypic antibody** of MCPS that protected mice from a lethal dose of N. meningitidis serogroup C. Selected peptides were synthesized and complexed to proteosomes. Mice were immunized at weeks 0, 1 and 3 with 50/100mug peptide/proteosome complex or with 50/100mug proteosomes alone as a negative control. Positive controls consisted of mice immunized at week 0 with 5mug MCPS. Sera were tested for the presence of anti-MCPS antibodies by ELISA assay. Our results demonstrate Pep1C and Pep2C are capable of eliciting an anti-MCPS antibody response. The functional activity of post immune sera obtained from immunized mice was tested using serum bactericidal assays. Bactericidal antibodies induced by Pep2C were significantly higher than mice immunized with proteosomes alone. Functional anti-MCPS bactericidal antibodies were not detected in mice immunized with Pep1C. In summary, our results indicate immunization with a peptide mimic of N. meningitidis serogroup C, screened by the same mAb that selected an anti-id of MCPS, can induce a functional anti-MCPS immune response similar to that induced by the anti-id. This study demonstrates that two different techniques, biopanning of a phage display library and production of an anti-idiotype, can be used to produce functional peptide mimics of MCPS.

L20 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

2001:676819 Document No. 135:237638 Human chemokine receptor CCR11, cDNA and protein sequences, chromosomal location, tissue expression profile, recombinant production and biological activity. Gray, Patrick W.; Schweickart, Vicki L.; Epp, Angela; Raport, Carol J.; Chantry, David; Steiner, Bart (Icos Corporation, USA). PCT Int. Appl. WO 2001066598 A2 20010913, 109 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML,

MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US7073 20010305. PRIORITY: US 2000-PV186928 20000303; US 2000-PV187231 20000303.

AB The present invention provides human chemokine receptor CCR11, a novel member of the G protein coupled receptor family. The invention provides **methods**, vectors and host cells for recombinant production of CCR11. The present invention also provides materials and **methods** for characterizing all receptors that mediate chemotaxis and compds. that stimulate chemotaxis. The invention also relates to antibodies immunoreactive with CCR11, including monoclonal, humanized, chimeric, single chain and bispecific antibodies. The invention also relates to chimeric proteins in which CCR11 is fused with one or more domains of immunoglobin. The invention further relates to cDNA and protein sequence of human G protein-coupled receptor Bonzo and assays to identify cytokines which induce chemotaxis of Bonzo-expressing cells.

L20 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

2000:769003 Document No. 133:320995 Anti-idiotype vaccines to elicit catalytic antibodies. Raso, Victor; Paulus, Henry (Boston Biomedical Research Institute, USA). U.S. US 6140091 A 20001031, 28 pp. (English). CODEN: USXXAM. APPLICATION: US 1998-102451 19980622. PRIORITY: US 1997-PV50388 19970620.

AB Disclosed are **methods** for the production of second generation catalytic antibodies. The **method** comprises (a) immunizing a first animal with a transition state analog, producing hybridomas and **screening** for production of monoclonal antibodies specific for the transition state analog and having catalytic activity; (b) immunizing a second animal with the monoclonal antibody identified in step (b) and producing hybridomas and **screening** for production of anti-idiotic monoclonal antibodies having a structure which mimics the transition state analog; and (c) immunizing a third animal with the anti-idiotypic monoclonal antibody to produce anti-**anti-idiotypic antibodies** having catalytic activity. The disclosed **methods** offer a variety of advantages relative to prior art techniques. For example, the **methods** of the present invention do not require prior identification of the active site of an enzyme, the activity of which is desired in the catalytic antibody. Addnl., the disclosed **methods** enable the production of antibodies which catalyze chemical reactions which do not occur in nature. The **methods** are exemplified by the production of catalytic antibodies specific for the transition state adopted by cocaine during chemical hydrolysis.

L20 ANSWER 15 OF 28 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

2000:509648 Document No.: PREV200000509648. Generation of an **anti-idiotypic antibody** as a surrogate ligand for sulfamethazine in immunoassay procedures. Kohen, Fortune [Reprint author]; Gayer, Batya; Amir-Zaltsman, Yehudith; O'Keeffe, Michael. Department of Biological Regulation, Weizmann Institute of Science, Rehovot, 76100, Israel. Food and Agricultural Immunology, (September, 2000) Vol. 12, No. 3, pp. 193-201. print.
ISSN: 0954-0105. Language: English.

AB We report the generation of an **anti-idiotypic antibody**, clone 12E12, against anti-sulfamethazine (SMZ) as a surrogate ligand for SMZ in immunoassay procedures. This has been achieved by using the primary monoclonal anti-SMZ antibody as an immunogen in hybridoma technology followed by **screening** of the resulting hybridromas for binding to the SMZ site of the primary anti-SMZ antibody. Characterization of a strong **anti-idiotypic antibody** of the betatype, clone 12E12, capable of mimicking SMZ, permitted the development of immunoassay formats for SMZ based on the idiotypic and anti-idiotypic approach and the direct measurement of SMZ content in diluted pig urine. The availability of the strong betatypic **anti-idiotypic antibody** acting as a surrogate ligand for SMZ enables antibodies to be labeled instead of ligands and

offers interesting possibilities for the development of competitive type non-isotopic immunoassays for SMZ.

L20 ANSWER 16 OF 28 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

1999:299819 Document No.: PREV199900299819. Identification and characterization of a novel barley gene that is ABA-inducible and expressed specifically in embryo and aleurone. Liu, Jin-Hao [Reprint author]; Luo, Ma; Cheng, Kuo-Joan; Mohapatra, Shyam S.; Hill, Robert D.. Institute of BioAgricultural Sciences, Academia Sinica, Taipei, Taiwan, 11529, China. Journal of Experimental Botany, (May, 1999) Vol. 50, No. 334, pp. 727-728. print.
CODEN: JEBOA6. ISSN: 0022-0957. Language: English.

AB A **screening** of a cDNA library of abscisic acid (ABA)-treated barley aleurone using a polyclonal **anti-idiotypic antibody** that had been made against an anti-ABA monoclonal antibody resulted in the isolation of a cDNA clone aba45. Northern blot analysis showed that aba45 was up-regulated by ABA and down-regulated by gibberellin. Aba45 mRNA was not detectable in barley roots, stems and leaves and was most abundant in developing aleurone and embryo. Analysis of the 5' genomic sequence of aba45, isolated using a nested PCR procedure, revealed a conserved ABA response complex that consists of an ACGT-core element and a conserved gibberellin response element.

L20 ANSWER 17 OF 28 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

1999:300718 Document No.: PREV199900300718. Mimotope and anti-idiotypic vaccines to induce an anti-IgE response. Stadler, Beda M. [Reprint author]; Zurcher, Adrian W.; Miescher, Sylvia; Kricek, Franz; Vogel, Monique. Institut fuer Immunologie und Allergologie Inselspital, CH-3010, Bern, Switzerland. International Archives of Allergy and Immunology, (Feb.-April, 1999) Vol. 118, No. 2-4, pp. 119-121. print.
CODEN: IAAIEG. ISSN: 1018-2438. Language: English.

AB We have defined epitopes on human IgE by **screening** different phage display random peptide libraries with a monoclonal anti-IgE antibody termed BSW17. The selected mimotopes and epitopes within the Cepsilon3 and Cepsilon4 region of IgE induced antibodies that were nonanaphylactogenic and had biological activity similar to BSW17. The chemically synthesized and KLH-coupled IgE epitopes or mimotopes were used to induce an anti-IgE response in rhesus monkeys. The immunized rhesus monkeys were subsequently protected in a PCA test when sensitized with human IgE and triggered with the corresponding allergen. Furthermore, using the same monoclonal anti-IgE antibody, we also generated an **anti-idiotypic antibody** that showed sequence homology with the IgE epitope in the Cepsilon3 domain. This **anti-idiotypic antibody** as well as the mimotopes were then used in a mouse model to induce orally an anti-IgE immune response. For this purpose mice were fed by intragastric gavages with bacteriophages displaying the smallIgE-homologous structures. Orally immunized mice produced serum anti-IgE antibodies that were inhibited by BSW17 suggesting that it may be possible to induce a systemic anti-IgE response orally.

L20 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

1998:205386 Document No. 129:15173 **Screening** of "1F7" idiotypic anti-gp160 antibodies from phage antibody library. Zhao, Yun-Feng; Wang, Hai-Tao; Wang, Quan-Li; Du, Zhi-Yan; Yang, Jing-Geng; Sun, Hong-Yan; Ma, Li-Ren; Yin, Zhen (Inst. Radiation Med., Beijing, 100850, Peop. Rep. China). Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao, 14(1), 20-24 (Chinese) 1998. CODEN: ZSHXF2. ISSN: 1007-7626. Publisher: Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao Bianweihui.

AB The mRNA extracted from the spleen cells of the HIV-1-infected person was reverse transcripted and amplified by polymerase chain reaction using general primers scanning Fd and light chain of IgG. The amplified fragments were ligated into phagemid pComb3 and electrotransinfected competent E. coli XL1-Blue cells. During co-culture with helper phage,

the recombinant phage lysis and Fab displayed on the surface as fusion protein with the N-terminal of coat protein III. By then, a 5 + 105 clone library was established. **Screening** antibodies both against HIV-1 and recognized by **anti-idiotypic antibody** "1F7". Specific antibodies against HIV-gp160 were enriched by 100 times after three rounds of panning with recombinant gp160 and gp41. Two clones named 1D and 3B exhibited specific binding to gp160 and monoclonal **anti-idiotypic antibody** "1F7" identified by direct and petitive ELISA **methods.** The success of isolating human anti-gp160 with "1F7" idiotype proved the usefulness of phage display system in human McAb preparation and laid a foundation for the **screening** of anti-idiotypic peptides which can block dominant clone of B cells in HIV-1 infected individuals.

L20 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
1994:550541 Document No. 121:150541 DNA sequences encoding vascular cell adhesion molecules (VCAMs). Hession, Catherine A.; Lobb, Roy R.; Goelz, Susan E.; Osborn, Laurelee; Benjamin, Christopher D.; Rosa, Margaret D. (Biogen, Inc., USA). U.S. US 5272263 A 19931221, 44 pp. Cont.-in-part of u.S. Ser. No. 359,516, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1989-452675 19891218. PRIORITY: US 1989-345151 19890428; US 1989-359516 19890601.

AB The cDNAs for human ELAM1 (endothelial cell-leukocyte adhesion mol. 1), VCAM1 and VCAM1b (vascular cell adhesion mols. 1 and 1b) are cloned. Mols. on the surface of leukocytes involved in leukocyte adhesion to endothelial cells (MILAs), such as CDX, a mol. involved in ELAM1 adhesion pathway, and VLA4, the ligand of VCAM1 and VCAM1b, are identified. These proteins or antibodies to these proteins, can be used to inhibit leukocyte-endothelial cell adhesion. The proteins and related products (e.g. soluble ELAM, VCAM; **anti-idiotypic antibodies** recognizing ELAM ligands; antisense nucleic acids active against ELAM on MILA mRNA; ribozymes cleaving ELAM/MILA mRNA; anti-ELAM/VCAM antibody-toxin conjugates; recombinant tumor infiltrating leukocytes expressing ELAM/MILA) can be used in diagnosis (e.g. of inflammation), in **screening** for inhibitors of adhesion, and in therapy (e.g. as tumor inhibitors). Soluble ELAM1 and soluble VCAM1b were produced with recombinant CHO cells. Assays for inhibitors of adhesion utilizing recombinant ELAM1 and soluble ELAM1 were devised and tested. A VCAM1-Ig fusion protein was produced with recombinant CHO cells. **Anti-idiotypic antibodies** recognizing ELAM1 ligands were prepared The promoter region of the ELAM1 gene was also identified.

L20 ANSWER 20 OF 28 MEDLINE on STN
94363270. PubMed ID: 8081776. A **screening** assay to simultaneously determine the presence and specificity of HLA **anti -idiotypic antibodies.** Paterson G E; Walker R G; Tait B D. (Tissue Typing Laboratories, Royal Melbourne Hospital, Victoria, Australia.) Transplant immunology, (1993) Vol. 1, No. 3, pp. 192-7. Journal code: 9309923. ISSN: 0966-3274. Pub. country: ENGLAND: United Kingdom. Language: English.

AB HLA sensitization is generally associated with an increased risk of graft failure. However, in many cases, highly sensitized patients with a negative current serum crossmatch may be successfully transplanted despite the high levels of alloantibodies (Ab1) in their serum. Sensitized patients may be divided into two groups. The group with a high-risk of early graft failure produces a negative current serum crossmatch as a result of antibody attrition, but upon transplantation the reactivation of Ab1 by the donor organ results in graft failure. The low-risk group gives a negative current serum crossmatch due to the abrogation of Ab1 by **anti-idiotypic antibodies** (Ab2). This specific inhibition results in the protection of the graft and improved graft survival. In this paper we describe a **screening method** which enables large numbers of patients to be assessed for the presence of Ab2 in pretransplant sera, while simultaneously

determining the specificities of these antibodies. The pretransplant assessment of sensitized patients for the presence of Ab2 would enable low-risk patients to be distinguished from high-risk patients, while information regarding Ab2 specificity would enable permissible mismatches to be considered. With this information at hand, the pretransplant waiting time for these patients may be greatly reduced. In our modification of the inhibition assay, selected dilutions of peak sera (P/n) were tested in the presence of either platelet absorbed current serum (P/n + Cabs) or an equal volume of fetal calf serum (P/n + FCS) as a dilution control.(ABSTRACT TRUNCATED AT 250 WORDS)

L20 ANSWER 21 OF 28 MEDLINE on STN DUPLICATE 1
92206003. PubMed ID: 1803774. [Monoclonal **anti-idiotypic antibodies** simulating the biological effects of human alpha-interferons]. Monoklonal'nye antiidiotipicheskie antitela, imitiruiushchie biologicheskie effekty chelovecheskikh al'fa-interferonov. Nagieva F G; Barkova E P; Nikulina V G; Andzhaparidze O G. Voprosy virusologii, (1991 Sep-Oct) Vol. 36, No. 5, pp. 402-7. Journal code: 0417337. ISSN: 0507-4088. Pub. country: USSR. Language: Russian.
AB The **method** of somatic hybridization was used to generate a panel of hybridomas producing monoclonal **anti-idiotypic antibodies** (mono-Ai-Ab) imitating biological effects of human alpha-interferons (hIF-alpha). Induction of syngeneic **anti-idiotypic antibodies** in BALB/c mice was achieved with monoclonal antibodies (MCA) IF-39 capable of neutralizing three kinds of hIF-alpha (lymphoblastoid, leukocyte, genetic-engineering). The **screening** of mono-Ai-Ab was done by determinations of antiviral activity (AV-activity) of supernatants from growing hybrid cell cultures caused by the cytopathic effect of 10-100 doses of mouse encephalomyocarditis virus (MEMC) by a micromethod in Vero cells grown in 96-well plates. Mono-Ai-Ab were found to neutralize MCA IF-39 and not to bind with immunosorbent of staphylococcal reagent containing protein A and BALB/c mouse immunoglobulins. It was shown that mono-Ai-Ab possessed AV-activity against MEMC and vesicular stomatitis viruses and were not inferior in this activity to commercial preparations of leukocyte IF-alpha. Mono-Ai-Ab had tissue species-specificity triggering the mechanism of AV-activity in human and simian cells as well as bovine kidney cells (MDVK line) imitating hIF-alpha in this effect.

L20 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
1991:157269 Document No. 114:157269 Antibodies to receptors by an auto-anti-idiotypic strategy. Erlanger, B. F. (Dep. Microbiol., Columbia Univ., New York, NY, 10032, USA). Biochemical Society Transactions, 19(1), 138-43 (English) 1991. CODEN: BCSTB5. ISSN: 0300-5127.
AB A review, with 30 refs., on the production of **anti-idiotypic antibodies** to purinergic receptors, TSH receptors, and mineralocorticoid receptors, and on the capacity of such antibodies to mimic the ligands for these receptors. **Anti-idiotypic antibodies** are conventionally prepared by a two-step procedure in which antibodies to an antigen are isolated and then used for immunization to elicit the **anti-idiotypic antibodies.** An alternative **method**, referred to as an auto-anti-idiotypic strategy, assumes the presence of a functioning idiotypic network. In this latter **method**, immunization with the antigen is followed by a direct **screening** for the **anti-idiotypic antibodies.**

L20 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
1991:242037 Document No. 114:242037 Recombinant endothelial cell-leukocyte adhesion molecules (ELAMs) and molecules involved in leukocyte adhesion (MILAs) and their therapeutic use. Hession, Catherine R.; Lobb, Roy R.; Goelz, Susan E.; Osborn, Laurelee; Benjamin, Christopher D.; Rosa, Margaret D. (Biogen, Inc., USA). PCT Int. Appl. WO 9013300 A1 19901115, 137 pp. DESIGNATED STATES: W: AU, CA, JP, KR, NO, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE. (English). CODEN: PIXXD2.

APPLICATION: WO 1990-US2357 19900427. PRIORITY: US 1989-345151 19890428; US 1989-359516 19890601; US 1989-452675 19891218.

AB The cDNAs for human ELAM1 (endothelial cell leukocyte adhesion mol. 1), VCAM1 and VCAM16 (vascular cell adhesion mols. 1 and 1b, and CDX, on MILA which may be an ELAM1 ligand, are cloned. These proteins or antibodies to these proteins, can be used to inhibit leukocyte-endothelial cell adhesion. The proteins and related products (e.g. soluble ELAM, VCAM; **anti-idiotypic antibodies** recognizing ELAM ligands; antisense nucleic acids active against ELAM on MSLA mRNA; ribozymes cleaving ELAM/MILA mRNA; anti-ELAM/VCAM antibody-toxin conjugates; recombinant tumor infiltrating leukocytes expressing CLAM/MILA) can be used in diagnosis (e.g. of inflammation), in **screening** for inhibitors of adhesion, and in therapy (e.g. as tumor inhibitors). Soluble ELAM1 and soluble VCAM1b were produced with recombinant CHO cells. Assays for inhibitors of adhesion utilizing recombinant ELAM1 and soluble ELAM1 were devised and tested. A VCAM1-Ig fusion protein was produced with recombinant CHO cells. **Anti-idiotypic antibodies** recognizing ELAM1 ligands were prepared

L20 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

1990:511184 Document No. 113:111184 Mapping of the prekallikrein-binding site of human H-kininogen by ligand **screening** of λgt11 expression libraries. Mimicking of the predicted binding site by **anti-idiotypic antibodies.** Vogel, Rudolf; Kaufmann, Joerg; Chung, Dominic W.; Kellermann, Josef; Mueller-Esterl, Werner (Dep. Clin. Chem. Clin. Biochem., Univ. Munich, Munich, D-8000/2, Germany). Journal of Biological Chemistry, 265(21), 12494-502 (English) 1990. CODEN: JBCHA3. ISSN: 0021-9258.

AB High mol. weight (H-)kininogen, a non-enzymic cofactor of the contact activation system, has on the COOH-terminal part of its light chain a unique binding site which complexes prekallikrein or factor XI with high affinity and specificity. In a conventional protein fragmentation approach, the prekallikrein-binding site was mapped to positions 556-595 of the human H-kininogen sequence (Tait, J. F.; Fuji-kawa, K., 1986). To gain more insight into the min. structural requirements of the prekallikrein-binding site, an alternative strategy employing the λgt11 expression cloning system was developed. A ligand assay was established which probes for the binding site in H-kininogen or recombinant fusion proteins thereof by complexation with prekallikrein, followed by a specific antibody against prekallikrein and a secondary labeled antibody. A cDNA library constructed in λgt11 from random fragments of a cDNA clone encoding the COOH-terminal part of the kininogen light chain was screened by the ligand assay, and 17 pos. clones were identified. Anal. of their inserted cDNA sequences revealed a consensus sequence of 119 nucleotides which maps to the extreme 3' end (positions 1759-1877) of the coding part of the prekininogen mRNA. The consensus sequence encodes positions 569-607 of the kininogen light chain and overlaps by 27 residues (positions 569-595) with the binding segment identified previously by the fragment approach. Anal. of successively shortened peptides revealed that the common segment of 27 residues but not truncated versions thereof contains the essential structural elements for prekallikrein binding. This conclusion was corroborated by the finding that anti-idiotyic antibodies toward a monoclonal antibody directed to the binding segment of 27 residues bear internal image(s) of the binding site of H-kininogen. It is pointed out that the methodol. described in this study may prove generally useful in the cloning and mapping of high affinity binding sites of proteins.

L20 ANSWER 25 OF 28 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

89270367 EMBASE Document No.: 1989270367. Production of syngeneic **anti-idiotypic antibodies: methods** for immunization and **screening.** Changkasiri S.; Taylor D.W.. Department of Biology, Georgetown University, Washington, DC 20057, United

States. Journal of Tissue Culture Methods Vol. 12, No. 3, pp. 99-102 1989.
ISSN: 0271-8057. CODEN: JTCMDB
Pub. Country: United States. Language: English.
Entered STN: 911212. Last Updated on STN: 911212
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L20 ANSWER 26 OF 28 MEDLINE on STN DUPLICATE 2
88017846. PubMed ID: 3116663. Idiotype-anti-idiotype interactions of VHIX-coded anti-progesterone and anti-arsonate antibodies. Comparison of passive haemagglutination and radioimmunoassays. Taussig M J; Kirk D; Wang M W; Ellis S; Meek K; Marvel J; Urbain J; Coombs R R. (Department of Immunology, AFRC Institute of Animal Physiology and Genetics Research, Cambridge, UK.) Scandinavian journal of immunology, (1987 Sep) Vol. 26, No. 3, pp. 267-76. Journal code: 0323767. ISSN: 0300-9475. Pub. country: ENGLAND: United Kingdom. Language: English.
AB The reactivity and specificity of polyclonal and monoclonal **anti -idiotypic antibodies** raised against monoclonal anti-progesterone and anti-arsonate antibodies have been studied by solid phase radioimmunoassay (RIA) with immobilized idiotype and by passive haemagglutination with idiotype-coupled red cells. The sensitivity of the two **methods** was comparable, though some cross-reactions were only detected by RIA. Passive haemagglutination was found to be especially suitable in **screening** for monoclonal anti-idiotypes in hybridoma supernatants and ascites, and had advantages over RIA in detection of syngeneic anti-idiotypes. Demonstration of binding site-associated idiotopes was possible by haemagglutination inhibition. RIA and haemagglutination were used to investigate the idiotypic relationships between BALB/c antiprogesterone and anti-arsonate monoclonal antibodies which share heavy chains encoded by VHIX variable region genes.

L20 ANSWER 27 OF 28 MEDLINE on STN DUPLICATE 3
87196449. PubMed ID: 2437204. Isolation of **anti-idiotypic antibodies** to T cells using an anti-framework determinant antibody. Maecker H T; Kitamura K; Brenner M B; Levy R. Journal of immunological methods, (1987 Apr 16) Vol. 98, No. 2, pp. 219-26. Journal code: 1305440. ISSN: 0022-1759. Pub. country: Netherlands. Language: English.
AB A panel of **anti-idiotypic antibodies** to the T cell line HPB-ALL was produced by **screening** with a novel enzyme-linked immunoadsorption assay (ELISA). Using the beta framework I (beta F1) monoclonal antibody directed at a common determinant on the human T cell receptor beta subunit, we were able to specifically capture the receptor molecule from a cell lysate preparation and use this as the basis of an ELISA assay. Hybridoma supernatants were tested for their ability to bind to the receptor thus captured. A total of four antibodies were isolated by this **method**, and they were shown to immunoprecipitate a disulfide-linked heterodimer composed of alpha (49 kDa) and beta (40 kDa) subunits from HPB-ALL cells, similar to the subunits recognized by the beta F1 antibody. Furthermore, all four antibodies blocked the binding of T40/25, an anti-idiotype to HPB-ALL. Three of these antibodies blocked the binding of anti-Leu 4 to a similar degree as did T40/25, while one did not. This suggests that these new **anti-idiotypic antibodies** recognize distinct but associated idiotypic determinants. The isolation of such antibodies for any particular T cell line or tumor promises to be useful for biological studies of T cell malignancy in humans.

L20 ANSWER 28 OF 28 MEDLINE on STN DUPLICATE 4
85056350. PubMed ID: 6150059. Production and detection of monoclonal anti-idiotype antibodies directed against a monoclonal anti-beta-adrenergic ligand antibody. Guillet J G; Chamat S; Hoebeke J; Strosberg A D. Journal of immunological methods, (1984 Nov 16) Vol. 74, No. 1, pp. 163-71. Journal code: 1305440. ISSN: 0022-1759. Pub. country: Netherlands. Language: English.

AB A new **method** has been developed to raise monoclonal **anti -idiotypic antibodies.** Monoclonal **anti-idiotypic antibodies** were obtained by fusion of NS-1 myeloma cells with splenocytes of mice immunised by intravenous injections of fixed hybridoma cells bearing a monoclonal antibody specific for beta-adrenergic ligands. New **screening** tests were developed to analyse the resulting hybridoma supernatants for different anti-idiotypic properties. Among 23 hybridoma supernatants recognising the idiotype, 6 were found to inhibit hapten binding and 3 of these recognised beta-adrenergic receptors.

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L23 1 L21 AND ANTI-IDIOTYPE

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L23 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
2004:182921 Document No. 140:234394 Chimeric antigen comprising a first antigen-binding domain of **anti-idiotype** antibody linked to a second antigen for producing target idiotype antibody. **Suzuki, Masatsugu** (Peptide Door Co., Ltd., Japan). PCT Int. Appl. WO 2004018521 A1 20040304, 18 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2003-JP10671 20030822. PRIORITY: JP 2002-241695 20020822.

AB It is intended to provide an **anti-idiotype** antibody which can be conveniently and economically constructed compared with the existing type; a method of constructing the **anti-idiotype** antibody; and a method of preparing a target idiotype antibody using the above-described **anti-idiotype** antibody. A substance binding to the antigen-binding site of a first antibody is prepared and this substance is ligated to a second antigen to give a fused antigen. Next, this fused antigen is bonded to a second antibody capable of binding to the second antigen as described above, thereby giving an **anti-idiotype** antibody against the first antibody. In a method of preparing a specific idiotype antibody which comprises inoculating an animal with an **anti-idiotype** antibody to the idiotype antibody and then further inoculating with an antigen of the above idiotype antibody, the **anti-idiotype** antibody as described above is employed. Thus, the target idiotype antibody can be efficiently obtained.

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